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UNITED STATES DEPARTMENT OF AGRICULTURE

In Cooperation with the
Agricultural Experiment Station of the University of Minnesota

DEPARTMENT BULLETIN No. 1295

Washington, D. C. ▼ March 23, 1925

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LAND SETTLEMENT AND COLONIZATION IN THE GREAT LAKES STATES

By

JOHN D. BLACK, Chief, Division of Agricultural Economics, University of Minnesota, and
L. C. GRAY, Economist in Charge, Division of Land Economics,
Bureau of Agricultural Economics

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WASHINGTON
GOVERNMENT PRINTING OFFICE
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ACKNOWLEDGMENTS

The group of studies of which this report forms a part is the product of several cooperating agencies. The Division of Land Economics, Bureau of Agricultural Economics, United States Department of Agriculture, initiated and directed the projects and assumed the major portion of the expenditure involved and most of the work of tabulating the data. The Minnesota Experiment Station bore half of the expense of that part of the study carried on in Minnesota. Dr. John D. Black, of the Minnesota Experiment Station, assumed general direction of the field work in the three States and actively participated in much of the work. He also assisted in planning the schedules and tabulations and organized the material gathered for localities and companies. Dr. Carl O. Sauer, of the Department of Geography, University of Michigan, directed the field work of the settlers' progress surveys in that State and organized the material gathered from the different localities. Most of the material on the progress of settlers in Michigan is reserved for later publication. The University of Wisconsin cooperated in some of the studies carried on in the Lakes States, but all of this material is reserved for later use.

The following served as field agents in gathering data: C. O. Sauer, Budd A. Holt, George C. Haas, Archie Black, W. L. Witte, Donald C. MacLachlan, R. D. Jennings, J. C. Rundles, C. R. Chambers, E. A. Boeger, and Wade DeVries.

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CHARACTERISTICS OF THE REGION

In the days of free land and homesteading, a settler's success depended upon his own courage, resourcefulness, and good judgment; under present conditions, it depends rather upon the policies and practices of the land companies and other real estate agencies. Some of these are public-spirited, or else feel that good business requires them to consider carefully the welfare of their settlers; but they are more likely to be animated by profit-seeking motives than by consideration of the public interest. The Nation is therefore vitally concerned in this matter. Thousands of letters reach the United States Department of Agriculture and the various States every year from people who are interested in land settlement policies and in opportunities for acquiring farms.

The purpose of this bulletin is to analyze the methods of the different types of land companies and other related agencies. The region selected for this study is the northern portion of the three Great Lakes States—Minnesota, Wisconsin, and Michigan—a region in which land settlement has been as active since 1900 as anywhere in the United States. Field agents of the United States Department of Agriculture and the cooperating States interviewed 153 land companies, real estate dealers, and agents operating in this territory and obtained progress records from 3,000 of the settlers.

LOCATION AND EXTENT OF REGION

The area studied is the portion of these three Lakes States which is still largely undeveloped as farming land. (Fig. 1.) It includes some areas of prairie or peat land, but is essentially a cut-over region.

For purposes of analysis, this region has been arbitrarily defined as including all of the counties of the States with less than 50 per cent of their total area classified by the 1920 census as improved land in farms.[1]

It represents a total of over 70 million acres. Table 1 shows that only a third of these 70 million acres is in farms, and that less than half of this third is improved.

TABLE 1.—*Percentage of total land area of the undeveloped portion of the Lakes States in farms, in improved land, and in crops, by groups of counties, 1920*

Groups of counties	In farms	Improved land	In crops
	Per cent	*Per cent*	*Per cent*
I. Counties in which less than 25 per cent of the area is in farms	11.7	3.5	2.8
II. Counties in which more than 25 per cent but less than 50 per cent of the area is in farms	35.3	14.5	11.4
III. Counties in which over 50 per cent of the area is in farms but less than 50 per cent is improved land	68.6	36.2	29.8
Entire region	33.6	15.5	12.6

TABLE 2.—*Percentage of all land in farms which is improved, in crops, or in woodland in the undeveloped part of the Lakes States, by groups of counties, 1920*

Groups of counties	Improved land	Crop land	Woodland
	Per cent	*Per cent*	*Per cent*
I. Counties in which less than 25 per cent of the area is in farms	29.8	23.5	45.9
II. Counties in which more than 25 per cent but less than 50 per cent of the area is in farms	41.0	32.2	31.9
III. Counties in which over 50 per cent of the area is in farms but less than 50 per cent is improved land	52.7	43.4	28.3
Entire region	46.1	37.5	32.1

When the area is divided into three parts, as in Figure 1 and Table 1, it appears that half of the whole area is in counties having less than 25 per cent of their land in farms and averaging only 11.7 per cent of their land in farms, only 3.5 per cent improved, and only 2.8 per cent in crops. The counties in Group II, constituting a little over 20 per cent of the whole area, have from 25 to 50 per cent of their land in farms, averaging 35.3 per cent, with 14.5 per cent improved. The counties in Group III, constituting about 30 per cent of the total area, have over 50 per cent of the land in farms, but less than 50 per cent of it improved. Settlement is nearly complete in the Group III area, but there are some odds and ends of land still not in farms, and settlement is so recent that only a little over a

[1] Such a determination of the boundary line results in the inclusion of several Wisconsin counties as cut-over regions that ordinarily are not so classified. These counties are located in the central sandy plain of Wisconsin and are developing very slowly.

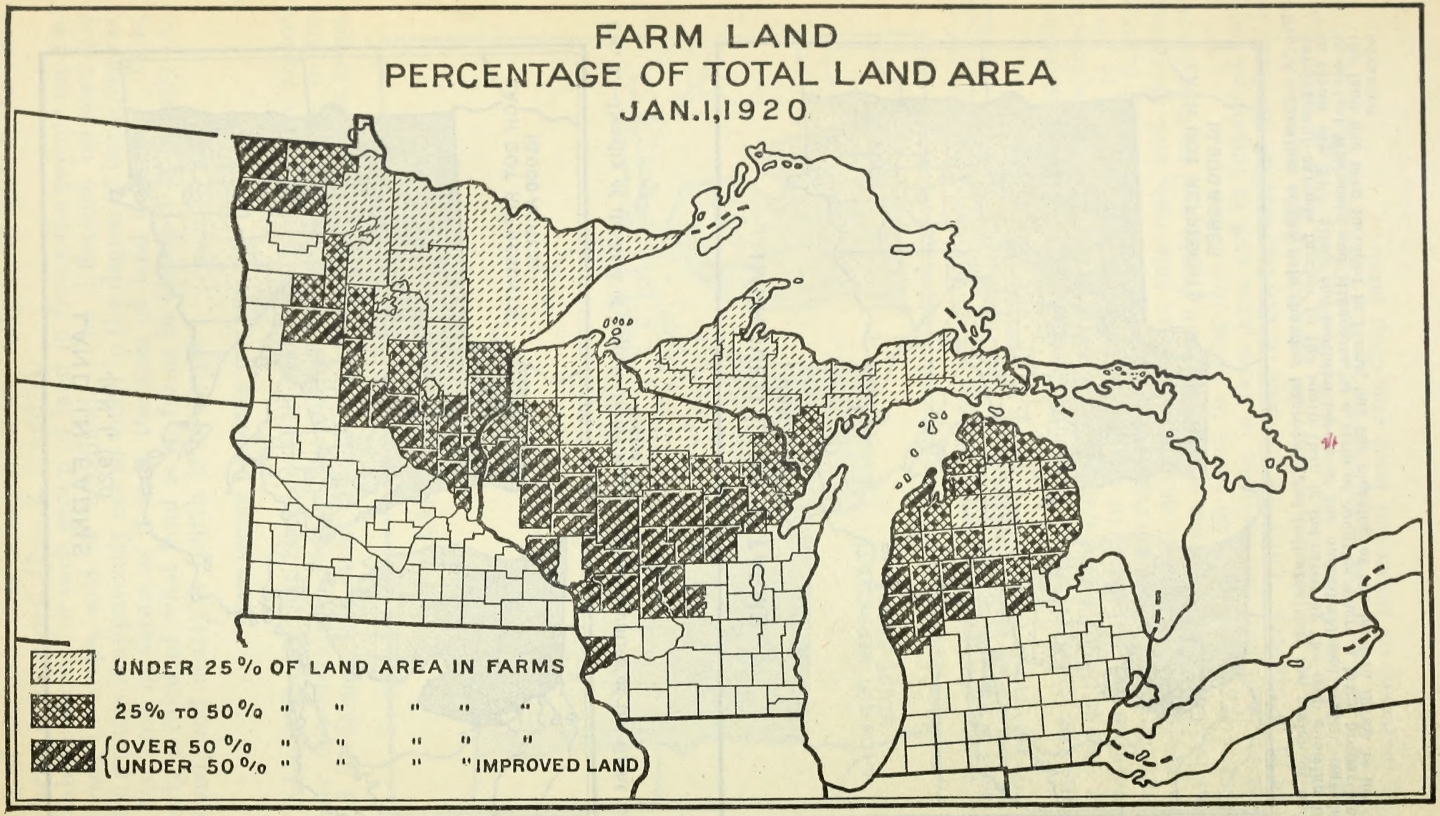

FIG. 1.—The shaded portion of the map comprises the area selected for statistical reasons as representing the so-called "cut-over" or undeveloped region of the three Great Lakes States. Most of the region is cut-over land. It is in various stages of development, and from this standpoint the counties involved are divided into three statistical groups

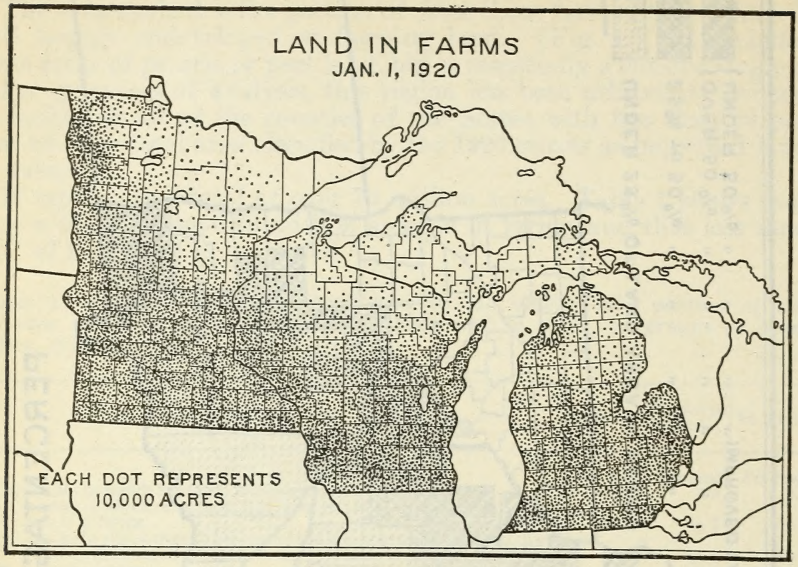

FIG. 2.—Density of the area of land in farms in the various counties of the Great Lakes States

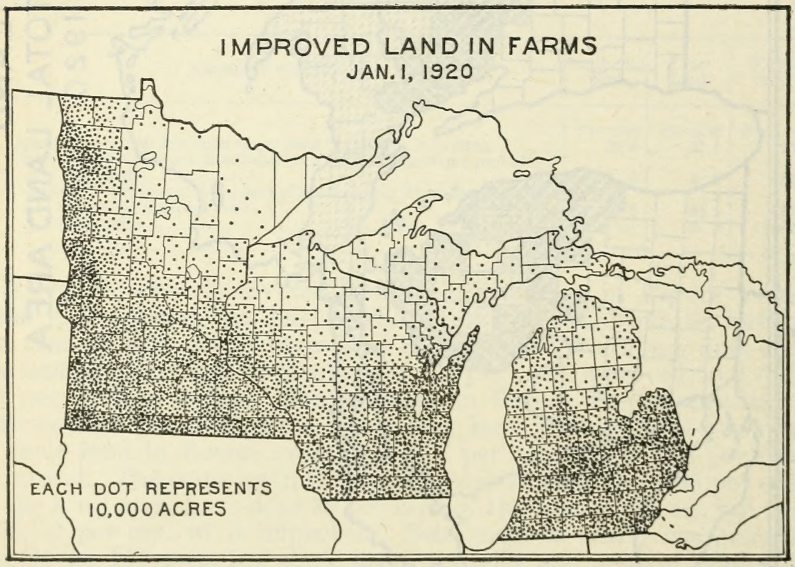

FIG. 3.—Location of the dots showing improved land indicates that the region of underdevelopment extends farther to the south than is indicated by the map showing land in farms (fig. 2). Along the southern border of the underdeveloped region, especially in central Wisconsin and Minnesota, is a strip of counties where a large proportion of the land has been included in farms, but the clearing of the land in farms is not far advanced

third of the total area is improved and only about half of the land in farms is improved (figs. 2, 3, and 4).

Table 2 shows for each group of land in farms the percentage improved, in crops, and in woodland. The difference between the three groups is apparently not so much in the degree of improvement of the land in farms as it is in the area of land in farms. Thus, nearly a third of what land is in farms in Group I is already improved, and nearly a fourth is in crops.

SETTLEMENT BETWEEN 1910 AND 1920

Table 3 shows that between 1910 and 1920 in the entire region under consideration, nearly 3½ million acres were added to the land in farms, and about 2½ million acres to the land in crops.

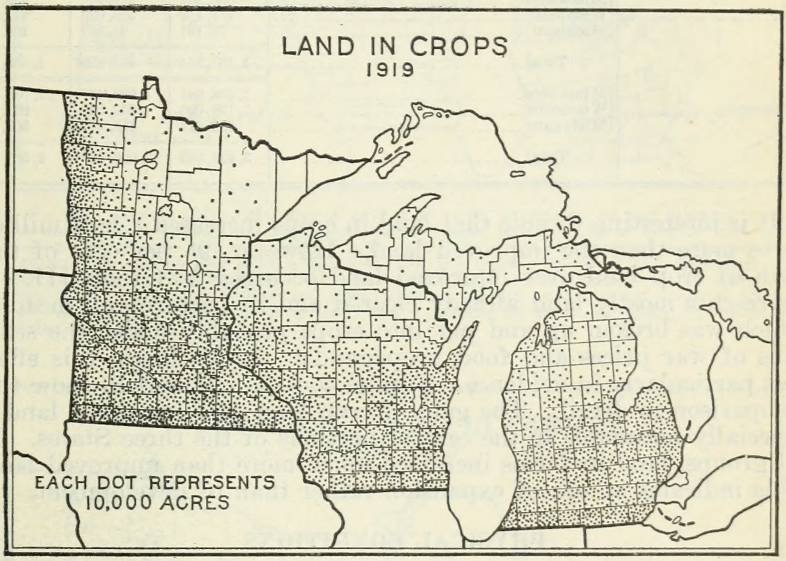

FIG. 4.—The area of land in crops is somewhat smaller than that of improved land as shown in Figure 3, for improved land in this region includes not only land in crops but also brushed pasture, farmsteads, etc. The variations in density of crop land correspond closely to variations in density of improved land

Thus, the increase in crop land, mostly effected by clearing or draining, was at the rate of about 250,000 acres a year. This was a decade favorable on the whole to expansion of farm area, and it is very doubtful if the above average rate of increase has continued during the years of the present decade. Even at this rate, and assuming that half of the 46 million acres not yet in farms will go into farms eventually, it will take 68 years to bring this about.

More than half the increase in farm area and in improved land was in Minnesota. Only 14 per cent of the increase of the land in farms was in Michigan, and only 18 per cent of the increase in improved land in farms. Of the increase in farm land in Michigan, nearly half was in the upper peninsula, and likewise about a third of the increases of improved land and crop land.

TABLE 3.—*Increase of land in farms, improved land, and land in crops, by groups of counties, in the underdeveloped part of the Lakes States, 1910–1920*

Groups	States	Increase of all farm land	Increase of improved farm land	Increase of land in crops
		Acres	*Acres*	*Acres*
I	Minnesota	653, 039	209, 792	196, 510
	Wisconsin	341, 980	129, 982	119, 062
	Michigan	242, 905	127, 707	149, 652
	Total	1, 237, 924	467, 481	465, 224
II	Minnesota	504, 911	294, 729	287, 846
	Wisconsin	322, 698	148, 326	165, 333
	Michigan	166, 318	144, 001	159, 358
	Total	993, 927	587, 056	612, 537
III	Minnesota	650, 931	518, 926	554, 639
	Wisconsin	473, 412	355, 025	677, 314
	Michigan	73, 191	91, 869	198, 608
	Total	1, 197, 534	965, 820	1, 430, 561
All groups	Minnesota	1, 808, 881	1, 023, 447	1, 038, 995
	Wisconsin	1, 138, 090	633, 333	961, 709
	Michigan	482, 414	363, 577	507, 618
	Total	3, 429, 385	2, 020, 357	2, 508, 322

It is interesting to note that land in crops increased a half million acres more than the improved land. However, 95 per cent of this gain of crop land over improved land occurred in Group III. It represents mostly land already cleared and in pasture and meadow which was broken up and put into crops probably under the stimulus of war prices and food propaganda. In Michigan this effect was particularly in evidence. Figures 5, 6, 7, 8, 9, and 10 show this comparison in detail. The gain of crop land over improved land is especially noticeable in the central portions of the three States. In all groups, land in farms increased much more than improved land. This indicates an era of expansion rather than of development.

PHYSICAL CONDITIONS

The westward tide of land settlement in the last half of the nineteenth century passed this region almost completely by, moving on to the prairies of Nebraska and the Dakotas, and even into Canada. The reasons for this may be summarized under four heads, as follows: Timber, climate, quality of the land, and accessibility.

TIMBER

This is mostly a region of mixed hardwood and coniferous forests. The pine and hemlock stumps are not large and not very close together in much of the area; but taking the region as a whole they are large enough and thick enough to make the problem of land clearing immensely more difficult than in the hardwood regions farther south. Hardwood stumps can be left to decay, but pine stumps have to be pulled or blasted. Moreover, much of the cut-over land has already grown over with brush and second growth, and everywhere there are down logs. To clear such land and to level and break it would cost, if labor were hired at present rates, from $15 to

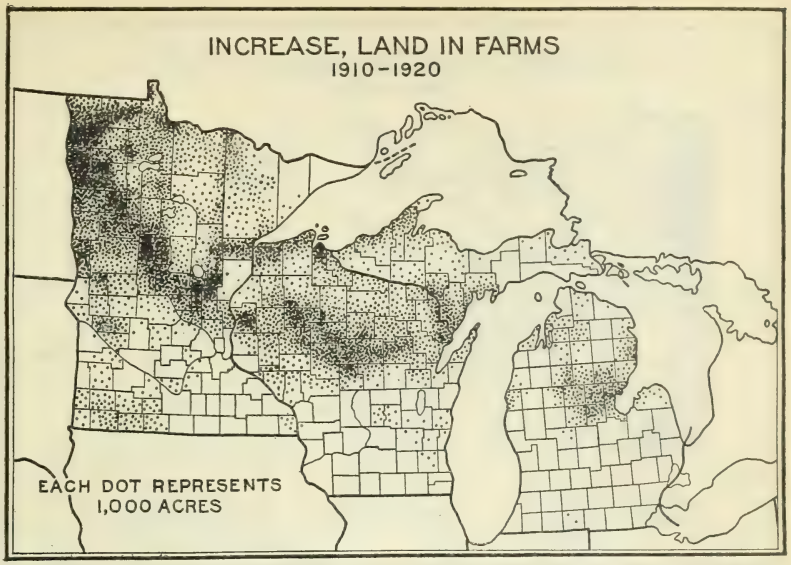

FIG. 5.—The decade 1910–1920 was a period of rapid expansion of the farming area in the undeveloped portion of the Great Lakes States, particularly in central and northwestern Minnesota and in a belt of land stretching from the western border of Green Bay on the east to the Mississippi River on the west. North of this belt there was less expansion. The expansion of the farming area in Michigan was somewhat less than in the two other States and was localized mainly in a district west of Saginaw Bay, the district west of Green Bay, and a stretch of territory along the southwest border of Lake Superior

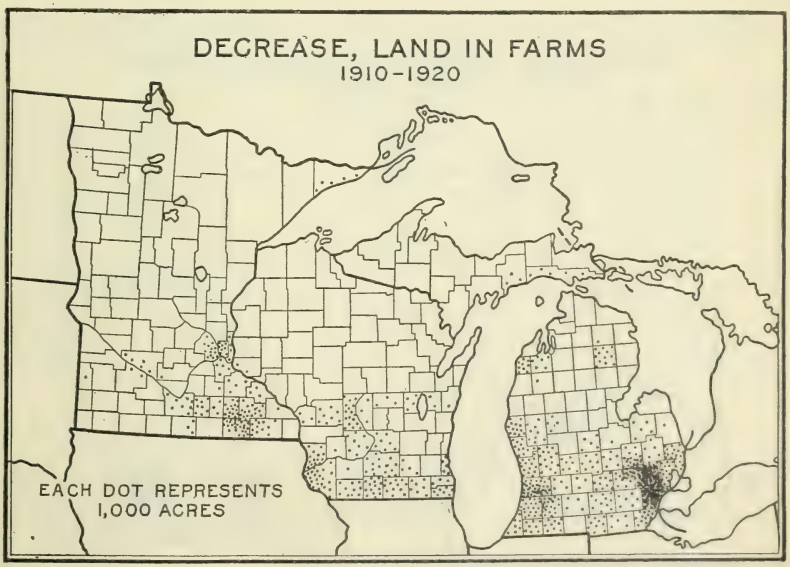

FIG. 6.—Although there was a prevailing increase in the area of farm land in the northern portions of the three States, there was a decrease in the area in most of the southern counties of Michigan and Wisconsin and in a number of counties of southeastern Minnesota. The partial responsibility of city growth for this decrease is shown by the large decrease in the immediate vicinity of Detroit and the Twin Cities

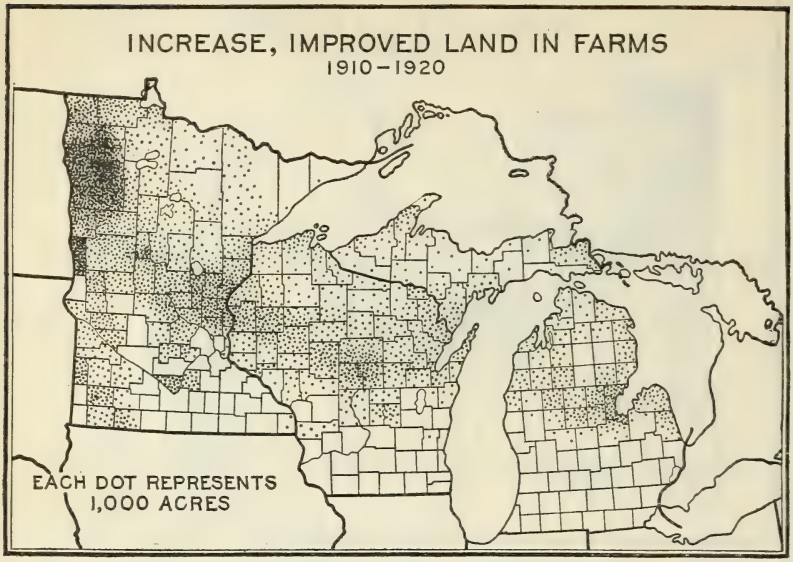

FIG. 7.—In northwestern Minnesota the increase in improved land in several counties was more extensive than the increase in the area of land in farms. In a large part of this district comparatively little clearing was necessary. Southwestern Minnesota and the western part of the southern peninsula of Michigan were also districts in which the improvement of farm land already occupied was more extensive than the expansion of the area of land in farms. In general, in northern and eastern Minnesota, northern Wisconsin, and the northern peninsula of Michigan the area of improved land did not keep pace with the expansion of the farming area

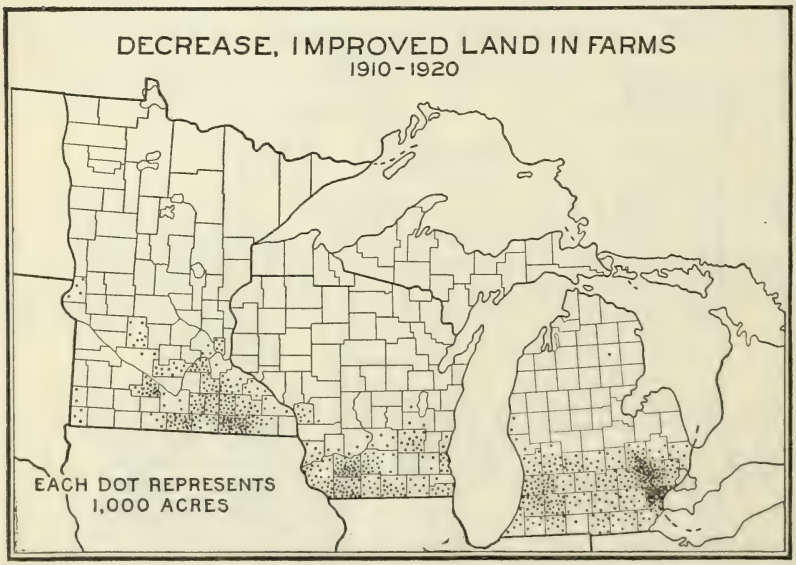

FIG. 8.—The tendency toward a decrease of the area of land in farms in the southern parts of the three States (fig. 6) was accompanied by a decrease in the area of improved land in farms. However, in certain counties the decrease of improved land was even greater than the decrease of land in farms

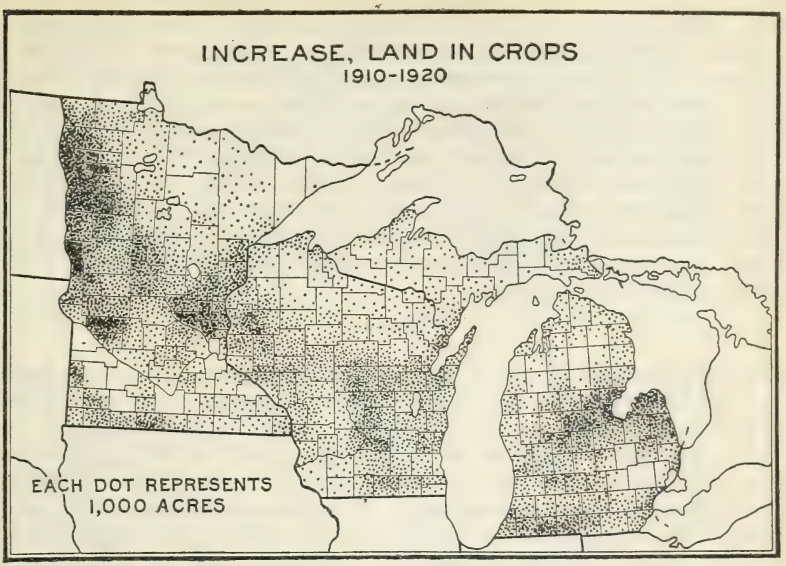

FIG. 9.—In spite of the decrease in the area of improved land in southeastern Minnesota and the southern portions of Wisconsin and Michigan, there was a considerable increase of area of land in crops in all of these districts. This is accounted for largely by the tendency to plow up improved pastures and devote the land to crops which resulted from war-time demand. In the newly developing portions of the three States the areas of increase in land in crops correspond closely to the areas of increase in improved land

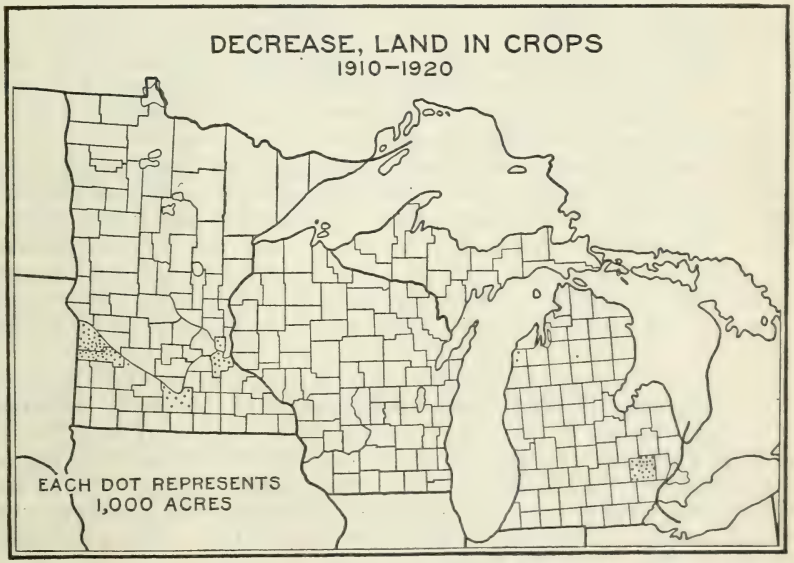

FIG. 10.—There was a decrease of crop area in only a few scattering counties of the three States

$200 per acre, and for most of the region between $25 and $60 per acre. Poor sandy jack-pine or scrub-oak land is not very hard to clear; but after it is cleared, its utility is not very great. Land which has been burned over repeatedly needs little or no brushing; but its humus has been largely destroyed, and there are charred logs and stumps in abundance. Only in a few restricted semiprairie areas in Minnesota, and a few strictly hardwood belts in all three States, is moderately easy clearing combined with reasonably good land. These are the most important reasons that settlement in the northern part of the Lakes States has been so backward. If the timber had all been hardwood, over two-thirds of the good land in the region would probably now be in farms.

CLIMATE

Climate is probably the next most important factor. The region is mostly too far north for corn as a grain crop as at present grown, and much of it even too far north for a good quality of silage year in and year out. Some parts of the region will scarcely grow good silage any year. In general, the growing season is appreciably shorter than in the southern parts of the same States, which means a longer feeding season in winter and a shorter growing period in summer. The frost hazard in much of this region is a real one for many crops, such as potatoes and flax. There is a strip of land along the shores of Lake Superior and Lake Michigan which has a longer growing season but its springs are cold and late. This adapts it to the growing of fruits, grasses, grains, and root crops, but interferes with growing good corn for silage.

These climatic disadvantages do not in any sense preclude the eventual profitable use of all the good land in this region for agriculture. They have merely acted as a check on development and will probably continue so to act in the future. Land seekers have been willing to take up land too far north for corn, but it has been prairie land that could be quickly turned out into wheat farms or ranches. There is no instance on record of settlers rushing into a region and clearing off the pine stumps to grow wheat.

The successful systems of farming generally practiced in this region represent a combination of hay and forage, cattle and pasture, oats and barley, and potatoes, sugar beets, and other root crops. Such a system of farming can be as profitable as any other; but the land upon which it is practiced will probably never be so valuable, assuming the same fertility, as that farther south which will grow corn as a grain crop and which has a shorter feeding and a longer growing season.

A few of the physical facts upon which these conclusions are based are the following: The July mean temperature of this region averages 68° F. and runs as low as 62° F. in places as compared with 76° F. for Iowa and Illinois. Figure 11 indicates that the frost-free period ranges from 100 to 170 days, being highest along the lake shores and to the south. There are many localities with poor air drainage, however, which have frosts in August one year in two. The peat lands are especially subject to frosts.

QUALITY OF LAND

At least a third, possibly a half, of the 46 million acres of land not yet in farms would now be considered fair-to-good farming land if cleared of stumps and stones and brought under cultivation. But this third or half is so interspersed with land which is too sandy, too rocky, too swampy, or too rough for cultivation that it has not had a chance to stand upon its own merits. Of the remaining half or two-thirds, more is poor because it is sandy than for any other reason. There are extensive areas in all three States, but especially in Wisconsin and in the southern peninsula of Michigan, of light sandy loam soils. Minnesota, on the other hand, has large areas of muskeg swamps and rough, rocky land. It has a portion of sandy land be-

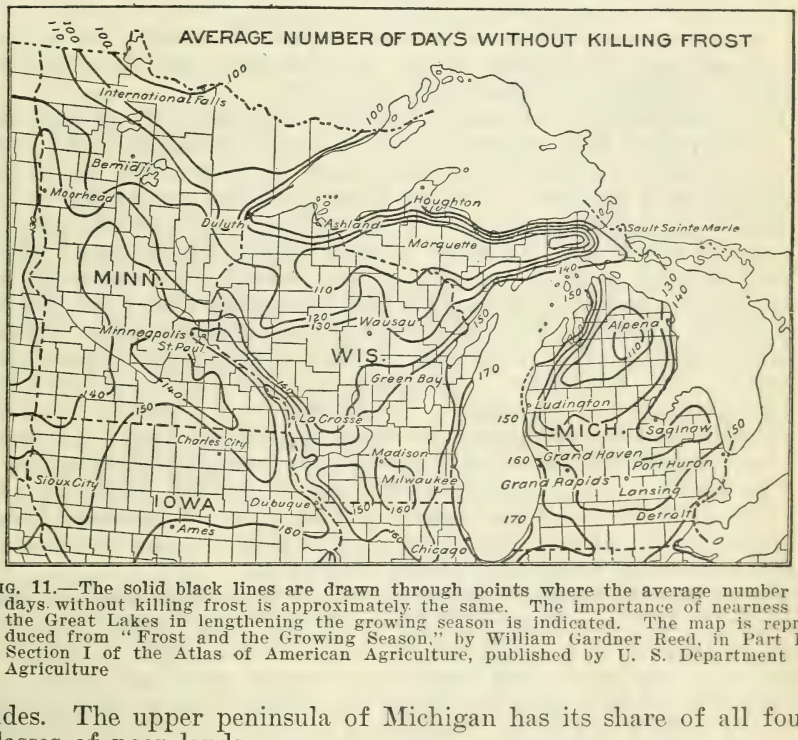

FIG. 11.—The solid black lines are drawn through points where the average number of days without killing frost is approximately the same. The importance of nearness to the Great Lakes in lengthening the growing season is indicated. The map is reproduced from "Frost and the Growing Season," by William Gardner Reed, in Part II, Section I of the Atlas of American Agriculture, published by U. S. Department of Agriculture

sides. The upper peninsula of Michigan has its share of all four classes of poor lands.

Of that part which has been classified as potentially fair-to-good farming land, a large proportion is rather stony. Some of the very best of these soils have belts stretching through them which are so thickly strewed with stones that it is hardly economical at present to use them for any purpose except for pasture. Land equally stony is usually still in pasture farther south. On most of the rest of it, the removing of the stones is one of the cost of clearing, in some cases as great a cost as for removing the brush and stumps.

It must be said of all the region that the soils are essentially timberland soils, having possibly an abundance of potential mineral plant foods but very low in humus. In this latter respect they are the

exact opposite of the prairie soils south and west. Moreover, in many sections forest fires have burned off much of what humus was originally in the soil. Consequently most crops do not prosper for the first few years, especially on the heavier soils.

The explanation of the condition of the land in this region is as follows: The northern part, a belt stretching from the northeastern corner of Minnesota and across northern Wisconsin almost to Lake Michigan, including the western part of the upper peninsula of Michigan, is a center or core of ancient crystalline or hard rock. Surrounding this central core and comprising nearly all of the remainder of the region is a sort of table-land originally composed largely of old limestones and sandstones. However, glaciers swept over all this region breaking up the central granite core and leaving it rough land with an abundance of rocky outcrops, lakes, swamps, and gravelly moraines. Included in this area are the great iron ranges, the Mesabi and Vermillion ranges in Minnesota, and the Penokee-Gogebic ranges in Wisconsin and Michigan.

The table-lands to the south of this central core were gouged out into valleys and lake bottoms in places, and in general covered over with an uneven mass of glacial débris varying from a few feet to 100 feet or more in thickness. The topography of this part of the region is generally of two types. One is the terminal moraine topography where the débris was deposited in steep ridges, knobs, and "kettle holes," usually of sand and gravel, and dotted with thousands of lakes, ponds, and small swamps, a large proportion of which are in the cut-over region. The other type is the ground-moraine topography consisting of low, rounded swells and saucer-like depressions, usually called "till plains." On these plains are found the best farm lands, although the drainage is frequently poor. Between the moranic hills and the till plains are sometimes found level "out-wash plains" of lighter soils, usually too light for ordinary farming use.

The receding glacier left several large temporary lakes, the old bottoms of which to-day are usually peat swamps and marshes. Chief of these glacial lakes is Agassiz, now represented by the vast swamp north of the Red Lakes in northern Minnesota.

Under these circumstances the selecting of good farm land is a difficult task. The land companies and other real estate agents have not been so helpful as they should be in assisting settlers to get good land, with the result that many have bought poor land and have failed. It has been said that if all the settlers who in the past 50 years have been sold land in the central sandy plain of Wisconsin and have failed in consequence had been taken a few counties farther north and sold some of the good silt-loam lands most of the good land in northern Wisconsin would now be in farms. In Wisconsin in particular the crescent-shaped out-wash plain stretching all the way from Burnett County in the northwest to Marinette County in the northeast, and more than two counties wide in the center, has served as a very effective barrier against development north of it.

ACCESSIBILITY

Although most of this region is not very far removed from the shores of the Great Lakes and has potential water transportation for its products, its railway systems are not of the best. The main lines

from Chicago and Milwaukee run northwest through Minneapolis and St. Paul and thus leave this region off to the right of the main current of traffic, except to the extent that Duluth and Superior serve as an outlet for this region during the eight months of lake navigation that one line cuts across the main line of traffic to Sault Sainte Marie. The upper peninsula of Michigan and the unsettled part of the lower peninsula therefore have somewhat the transportation economy of a large island that is icebound for a third of the year. A region of this sort needs railroads, but is likely to be slow in obtaining them. The backwardness of the Door peninsula of Wisconsin illustrates this point. It is therefore safe to say that location has been one of the factors retarding the agricultural development of this region. It has always been to one side of the current of traffic.

OWNERSHIP OF THE LAND

This land was originally acquired for lumbering and consequently its ownership was greatly concentrated. In 1914 the United States Bureau of Corporations published a survey concerning this point.[2] The report shows that 212 timber holders owning over 60,000,000 feet each somewhere in the 19 States surveyed, owned in the Lakes States alone nearly 12,000,000 acres of land, one owning 1,553,000 acres mostly in Michigan, another 808,000 mostly in Minnesota. Table 4 gives these results in more detail. The concentration is greatest in the upper peninsula of Michigan and least in Minnesota. A more detailed analysis of the upper peninsula of Michigan showed that 90 holders owned 56.2 per cent of the whole area, 32 owned 47.1 per cent of it, 12 owned 22.6 per cent of it, and one company owned 14.2 per cent of it.

TABLE 4.—*Large landholdings in timbered parts of the cut-over area of the Lakes States of timber holders of over 60 million feet each*[1]

(Quantities in table are in thousands of acres)

States	Total all groups	Group 1,[2] over 1,500,000 acres	Group 2, 500,000 to 1,500,000 acres	Group 3, 300,000 to 500,000 acres	Group 4, 150,000 to 300,000 acres	Group 5, 75,000 to 150,000 acres	Group 6, 37,500 to 75,000 acres	Group 7, 18,000 to 37,500 acres	Group 8, less than 18,000 acres
	(212)[3]	(1)	(1)	(7)	(12)	(23)	(39)	(53)	(76)
The Lakes States	11,917	1,553	808	2,066	1,551	2,111	1,695	1,331	802
Michigan	6,841	1,515	171	1,261	952	1,280	654	662	346
Wisconsin	3,274	----------	2	294	434	739	922	556	327
Minnesota	1,802	38	635	511	165	92	119	113	129

[1] From The Lumber Industry, Part III, p. 170, with a slight change in tabular arrangement.
[2] Groups according to size of holdings in all the 19 States to which the study applied (only holders of fee included).
[3] Figures in parantheses indicate number of holders in the group.

In Minnesota large land jobbers have been active in transferring the ownership of considerable land from the lumber companies, railways, mining concerns, and other large holders to numerous small absentee speculators, land companies, and other holders. To determine the effect on ownership of land in northern Minnesota, four counties were studied in detail as part of the work of the present in-

[2] U. S. Bureau of Corporations. The Lumber Industry, Parts 2 and 3. 1914.

quiry. Table 5 gives the data only for holders of 1,000 acres or more. The reason that Beltrami County has only 6.41 per cent of its lands in holdings larger than 1,000 acres is that the Federal Government disposed of the big swamp constituting half the county as small homesteads under the Volstead Homestead Act. (See p. —.) In the other counties, however, only about a fourth of the land is held in tracts over 1,000 acres, and only about 5 per cent in tracts over 20,000 acres.

TABLE 5.—*Ownership of land in holdings of 1,000 acres or more in four counties of northern Minnesota*

Groups by acres	Owners	Total owners	Holdings	Total acreage	Total land area of county
Aitkin County:	*Number*	*Per cent*	*Acres*	*Per cent*	*Per cent*
Under 3,000 acres	44	67.69	61,664	23.51	5.27
3,000 and under 10,000	12	18.46	59,154	22.55	5.05
10,000 and under 20,000	5	7.69	58,686	22.37	5.01
20,000 and under 24,000	4	6.16	82,800	31.57	7.07
Total	65	100.00	262,304	100.00	22.40
Itasca County:					
Under 3,000 acres	77	68.75	127,120	26.26	7.28
3,000 and under 10,000	21	18.75	111,680	23.07	6.39
10,000 and under 19,000	9	8.04	117,600	24.29	6.73
19,000 and under 34,000	5	4.46	127,680	26.38	7.31
Total	112	100.00	484,080	100.00	27.71
Cass County:					
Under 4,000 acres	69	76.67	126,640	44.12	9.41
4,000 and under 7,000	17	18.89	87,840	30.60	6.52
12,000 and under 28,000	4	4.44	72,560	25.28	5.39
Total	90	100.00	287,040	100.00	21.32
Beltrami County:					
Under 2,000 acres	33	58.93	41,360	26.37	1.69
2,000 and under 4,000	15	26.78	41,920	26.73	1.71
4,000 and under 8,000	7	12.50	35,720	22.77	1.46
38,000	1	1.79	37,840	24.13	1.55
Total	56	100.00	156,840	100.00	6.41

TABLE 6.—*Classification of all private holdings of land in two townships of Cass County, Minn.*

Ansel township			Trelipe township		
Size of holdings—acres	Number of owners	Number acres in holdings	Size of holdings—acres	Number of owners	Number acres in holdings
Less than 40	2	30	40 to 80	11	440
40 to 80	9	360	80 to 120	14	1,120
80 to 120	18	1,440	120 to 160	10	1,200
120 to 160	9	1,080	160 to 200	14	2,240
160 to 200	26	4,170	200 to 240	4	800
200 to 240	5	1,000	240 to 280	7	1,680
240 to 280	3	720	280 to 320	4	1,120
280 to 320	5	1,400	320 to 360	4	1,280
320 to 360	3	960	360 to 400	2	720
360 to 400	3	1,080	400 to 440	1	400
400 to 640	0	0	440 to 480	0	0
640 to 680	2	1,280	480 to 520	2	960
680 to 720	1	680	520 to 560	2	1,040
720 to 1,120	0	0	560 to 600	0	0
1,120 to 1,140	1	1,120	600 to 640	1	600
			640 to 680	0	0
			680 to 720	2	1,360
Total	87	15,320	Total	78	14,960

Table 6 gives statistics of ownership for two typical townships in Cass County. In one of these 87 owners hold an average of 176 acres each, and in the other 78 owners hold an average of 192 acres each. Only a very few of these 165 holders in the two townships were actually living on the land. The rest were small speculators who had bought their land from lumber companies, land jobbers, and the like, at prices usually from $2 to $15 per acre, according to quality and time of purchase, with a view either to reselling later at a profit or to holding until such time as they or some member of their families might want to live on the land.

Table 7 shows that over half of the acreage in holdings of 1,000 acres or over in three counties are owned by persons living in the large cities of Minnesota, about one-sixth by persons living outside the State, and one-ninth by persons living in the same counties. Although no statistics were obtained, apparently the holders of the smaller tracts listed in Table 6 are almost as widely scattered.

Colonization methods require fairly large and compact tracts of land, and it is difficult to organize such projects on lands the ownership of which is so widely scattered as in most of northern Minnesota. Under such circumstances other sales methods must be used. Concentration of ownership, such as found in Michigan and Wisconsin, is conducive to the use of colonization methods. However, most of the lands in Wisconsin and Michigan suitable for colonization by reason of quality and compactness of sufficiently large areas are already in process of colonization.

TABLE 7.—*Holders of 1,000 acres or more in three Minnesota counties classified by residence*

Residence	Itasca County		Beltrami County		Cass County	
	Number of owners	Acreage held	Number of owners	Acreage held	Number of owners	Acreage held
Towns in county	10	32,800	24	42,000	11	34,720
Large cities in Minnesota	60	297,040	15	70,760	37	118,840
Other towns in Minnesota	17	93,320	7	15,720	18	78,320
Towns and cities in other States	25	60,920	10	28,360	24	55,160
Total	112	484,080	56	156,840	90	287,040

CLASSES OF LAND SETTLEMENT AGENCIES IN LAKES STATES

The various agencies engaged in promoting land settlement in the Lakes States may be classified as (1) agents, (2) dealers, and (3) owners. Agents carry on a business of listing real estate to sell on commissions; dealers buy land for resale; and owners are engaged principally in selling lands which they acquired originally for other purposes. Most of the owners are lumber companies holding title to large areas of cut-over land, which they are trying to sell for whatever it will bring in order to get rid of the burden of carrying charges. Dealers, on the other hand, are mainly concerned in the margin between buying price plus operating expense on the one hand and selling price on the other.

Those owners who are still actively engaged in lumbering operations are only casually interested in selling their cut-over lands and

therefore are not pursuing an aggressive selling policy. They acquired their lands mainly for lumbering from which in many instances they have received earnings amounting to many times the original cost of acquiring the land. Consequently they are not under the same pressure to dispose of their land as are the dealers who have recently purchased at high prices, in some cases on credit. The rising burden of taxes, however, is forcing more and more owners to undertake active selling, and some of them are using colonization methods as a means of speeding up the process.

TABLE 8.—*Classes of land settlement agencies studied*

State	Agents only	Dealers only	Agents and dealers	Owners	Total
Northern Minnesota	9	8	46	9	72
Northern Wisconsin	1	15	6	27	49
Northern Michigan	2	4	1	25	32
Total	12	[1] 27	53	61	153

[1] Includes colonizing companies which buy the land they colonize.

Table 8 shows that relatively few are agents only; that most of them combine buying and selling with listing (classified as agents and dealers). The 27 classified as dealers only are mostly colonization and other land companies which buy the land they colonize. Some owners list a small amount of property for others, but it is mostly land abandoned by former settlers on their holdings.

LOCATION OF AGENCIES

All but 3 of the 153 firms included in Table 8 operated in one State only. Only 45 had headquarters in large cities exclusively, and only 10 of these 45 had headquarters in large cities in other States (9 in Chicago). Four more had headquarters outside of the State, but also local offices in the State where they were operating. Of the remainder, 108 had head offices in the same State, either in large cities or close to the holdings, or at both; but only 10 firms had headquarters in both locations. The agents and agent-dealers of the kind common in Minnesota usually have their headquarters in the midst of their operations. In general, the colonizing companies have offices in a large city and also on or near the land being colonized. The nonresident agent and dealer is more likely to be careless of his sales. If he makes a victim of a settler, he does not need to live with him and his neighbors; and he can shift the field of his operations if necessary.

LAND CONTROLLED

Table 9 shows that the owners controlled more land than all the other classes combined. In Michigan 26 owners held a total of 836,700 acres, or an average of 32,000 acres each; in Wisconsin 25 owners held an average of 57,100 acres; and in Minnesota 11 owners held an average of 54,000 acres.

The dealers and agent-dealers combined had "in stock" about a fourth of the total area, and controlled about 9 per cent more as

agents. The small agent-dealers of the type found in Minnesota had an average of 4,000 acres "in stock" and an additional 7,000 acres listed. As a matter of fact, most of them had less than this—11 of them had less than 1,000 acres in stock, 3 had about 2,000 acres, and 3 more about 3,000 acres. Similarly, most firms acting as agents had an average area listed of from 1,000 to 6,000 acres. The average is high because of a few large land companies. The same thing is true for the Wisconsin agent-dealers. Exclusive dealers of the ordinary type, such as found in Minnesota, generally had not more than 10,000 acres in stock. The large holdings found in Wisconsin belonged mainly to colonization companies, and those in Michigan were controlled by large operators holding under options.

Those who were agents exclusively reported only 1.6 per cent of the land included in Table 9. The ordinary agent generally had less than 5,000 acres listed, but this usually included partly improved as well as wild land. The agent-dealers had five times as much land listed as the exclusive agents.

TABLE 9.—*Land controlled by various classes of land-settlement agencies*

[The figures inclosed in parentheses show the number of concerns; the other figures are acreages in round numbers]

State	Agents		Dealers		Agents and dealers				Owners		All classes
					In stock		Listed				
	Total	Average	Total	Average	Total	Average	Total	Average	Total	Average	
	Acres	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*	*Acres*
Minnesota	(8) 20,800	2,600	(5) 50,000	10,000	(46) 184,000	4,000	(46) 322,000	7,000	(11) 596,000	54,000	1,172,800
Wisconsin	(3) 16,000	5,300	(19) 515,000	27,100	(7) 57,300	8,200	[1] (2) 8,000	4,000	(25) 1,428,000	57,100	2,024,300
Michigan	(2) 35,000	17,500	(3) 245,000	82,000	(1) 49,000	49,000	(1) 50,000	50,000	(26) 836,700	32,000	1,215,700
Total	71,800		810,000		290,300		380,000		2,860,700		4,412,800

[1] Only two out of seven agents and dealers in Wisconsin reported the amount of acreage listed

METHODS OF OPERATION

Methods of the small agent-dealers are as follows: They keep watch over all small holdings in the territory in which they are operating; look them up at the county courthouse; correspond with their owners and endeavor to get these holdings listed, or, if the price is right, take them under option if possible. If neither of these methods of obtaining control is feasible they buy the tracts under mortgage if possible, although this is not usual; or they buy them outright and borrow the money on mortgages or on collateral of various kinds. These men dislike to see a bargain go by. Hence, they are likely to carry a larger assortment of land in stock than is consistent with financial safety.

Most of the operators prefer to buy rather than to list land because of the larger margin made on resales as compared with com-

missions allowed on listed property. The most usual commission received by agents in northern Minnesota in 1920 was 5 per cent on partly improved land and $2 per acre on wild land. Agents for some of the large landholders receive as low as $1 per acre, or even less on wholesale lots. Dealers, on the other hand, usually try for margins of $5 to $10 per acre, although they frequently take much less rather than lose a sale. In general it appears that an agency alone is not sufficiently profitable in an undeveloped region to justify many firms in devoting themselves exclusively to this class of business. The conventional rates are little if any higher than in well-developed regions, and on account of the low value of the land the unit of sale is small. On the other hand, the expense of selling a 40-acre tract worth $25 an acre may be as great as for a 160-acre farm at $300 an acre in a developed region.

Wild land is not generally listed exclusively with one agent. When it is so listed, the agent is usually a representative of a large landholder and in charge of sales in certain territory. Some of these large landholders allow any resident real estate agent to act as agent for any of their holdings. In such cases, however, all the agent usually does is to secure the buyer, and the landholding company handles the actual transaction. Commissions in such cases are small, and the only reason the resident agents and agent-dealers handle such business is that occasionally they can not satisfy a prospect with any other land they have listed or in stock. It can be said, therefore, that considerable land belonging to large landholders is listed with many different agents. In Table 9, this "multiple listing" has been excluded as far as possible.

An agent-dealer always tries first to sell the land he owns or holds under option, because margins are usually larger than commissions and because profits in dealing depend upon quick turnover. The result is that persons anxious to sell their land find that their agents are not selling it for them very rapidly, and finally put the price low enough so that some agent thinks he can see a good margin in it by buying it for resale. In this way, many of the small holdings are forced to pass through a dealer transaction before they are sold. Large landholders usually adhere to their price schedules rather strictly, but even then, some of the agents buy desirable pieces of land from them and resell, instead of taking regular commissions.

However, to be able to satisfy all prospects, a dealer needs to have a considerable supply of land in stock, more than he can afford to carry unless his turnover is rapid or unless he can obtain a considerable portion of it under option. Hence he is glad to supplement his actual stock with as many good listings as he can obtain; and every once in a while he is forced to draw upon these listings in order to induce the prospect to buy. Also, in most cut-over territory there are many partly improved farms on the market, and these are likely to be listed, for the dealer must have somewhat more capital to buy them than is involved in the purchase of wild land.

VOLUME OF SALES

Volume of sales in 1919, or the usual volume of sales (sometimes both), was reported for 47 of the 70 land-selling agencies for which records were obtained in northern Minnesota. Thirty-six firms re-

ported sales in acres, the average being 4,700 acres. Eleven firms gave the number of tracts sold per year, the average being 80. These 47 firms were apparently selling land at the rate of about 250,000 acres per year. Six firms reported sales amounting to 10,000 acres or more per firm, and three firms reported annual sales of 15,000 acres or more.

The 13 land departments of lumber companies, dealers, and agents in Wisconsin, not including the large colonization concerns, reported a total of 37,000 acres of land sold, or an average of less than 3,000 acres per firm, and the 7 reporting in tracts indicated total sales of 262 tracts, or 36 per firm. In addition to this, agents and dealers reported resales of 42 partly improved or improved farms. This is a considerably smaller volume of business than is reported by the Minnesota land firms. Eight large colonization companies in Wisconsin, however, reported an estimated total of nearly 90,000 acres sold in a year.[3] This is an average of 11,250 acres per company. This reinforces a conclusion, reached on the basis of observation, that land has been sold most actively in northern Minnesota by agents and dealers, but in Wisconsin by large colonization companies.

The large colonizing companies in Wisconsin, however, have sold land rapidly only during the last 10 or 12 years, and especially during the 5 years preceding 1920. In northern Minnesota, the agents and dealers have been moving land very rapidly for the last 20 years. The business in this region seemed to slacken in 1919 and 1920, however, and it may be that the propaganda of the colonizing companies in northern Wisconsin turned considerable of the tide of settlement toward that State.

As shown in Table 9, in Michigan holdings were for the most part larger than in the other two States; but in spite of these large holdings, only a very small volume of sales was reported. Only 14 firms reported retail sales, and the average per year was but 840 acres. In addition, one or two concerns reported the sale of a considerable amount of land in wholesale lots.

This small volume of sales reflected the general stagnation of the land market in the undeveloped part of Michigan. The upper peninsula is too isolated or still too much in timber to be ready for an extensive land-selling program, and the undeveloped portion of the lower peninsula contains a large percentage of land of questionable agricultural value. Some of the large owners in the lower peninsula expressed the conviction that their lands were not suitable for farming except for orchards, and these they regarded as large-scale enterprises. Only two or three concerns were actively pushing the retail sale of land in Michigan. Many of the large landholders, who are engaged principally in other enterprises, such as lumbering, salt mining, or iron mining, do not consider that a campaign for the retail sale of their lands is timely. The market is very poor for the grade of land many of them now hold, and they doubt if the expense of selling would be justified by the volume of sales. The large colonizing companies of the Lakes States have not been forced as yet to resort to lands of this grade.

[3] In addition to these, there were four others which had previously done a large volume of business but which were not very active at the time the field data for this study were assembled, because their holdings were nearly all sold.

SUMMARY OF CLASSES OF LAND SETTLEMENT AGENCIES IN THE LAKES STATES

The predominant characteristics of land settlement organization in the three States may be briefly summarized as follows: In Minnesota the prevalence of dispersed holdings and the large number of small absentee owners has created a place for dealers and agents. Furthermore, most of the good land unsettled is in Groups II and III (fig. 1), where this type of ownership is most prevalent. Only in Group I was land owned in blocks large enough to colonize to advantage, and here most of the land is swampy, sandy, or covered with rock outcrops. Hence, there has been comparatively little tendency in Minnesota toward the employment of the intensive colonization methods that prevail in Wisconsin, where the good land is nearly all in Groups I and II (fig. 1) and is owned in larger and more compact tracts. In this State, not only the dealers but also many of the large timber companies have either directly or indirectly organized for systematic and intensive colonization.

Michigan is in severe contrast to both of the other States. Only one or two dealers in Michigan may be said to be operating on a large scale in putting settlers on the land. Furthermore, the large landowning firms for the most part have exhibited little enterprise in promoting the settlement of their holdings. The majority have been satisfied to make sales as opportunity arose, with little aggressiveness in attracting settlers to the region and particularly without employing intensive methods of colonization. Michigan is still in the stage of wholesaling wild land, and much of the undeveloped area is too poor to sell even at wholesale until the demand for farm land reaches lower qualitative levels.

GENERAL DESCRIPTION OF PROJECTS SURVEYED

In selecting areas for the study of land settlement the purpose in some instances was to find a group of settlers trying to develop farms under the same physical conditions; and, in other instances, to find groups of settlers who had bought their land from the same company under the same general terms of purchase, credit arrangements, and the like. Of the 3,000 settlers covered in the surveys, 583 were chosen for the latter reason. Since this bulletin is a study of selling methods, it will include only these settlers. They had bought their land from 15 different land agencies of the company type—11 in Wisconsin and 4 in Minnesota.

It is difficult to say how many of these 15 companies were "colonization companies." Colonization is a loosely used term. It usually carries with it, however, the following ideas: (1) Either a solid block of territory or else a group of smaller holdings so situated with reference to each other as to give them some sort of geographic unity, although the holdings may be scattered over several adjoining townships or out in several directions from a city or village; (2) some system of giving aid and supervision to the settler supposedly long enough to put him on his feet; (3) a more or less systematic plan of development, of laying out roads and farms, and of locating settlers; (4) selection of settlers of similar experience and nationality.

Although all these ideas are usually associated with land colonization, probably only the first two are essentials. The company which

does not look after its settlers, however, but simply sells off a block of land piecemeal to the first comers can scarcely be said to be colonizing.

If these four tests are applied to the 15 projects studied, all of them conform to the first, 11 of them to the second, and probably 8 to the third and 5 to the fourth. In some cases, however, the tracts were badly split up, in one case being spread over a large county. The aid and supervision given by 4 of the 11 companies were not of much importance; and for at least 2 of the 5 companies the planning of development and road building was mostly a matter of talk. The selecting of settlers by nationalities in most cases took the form of grouping of settlers of similar nationality in one part of the tract. A more significant classification of these 15 companies for the purpose of this study is the following:

(1) Seven of the number were selling land under ordinary 5 or 10 year contracts and giving no aid to settlers in the form of advances or credit.

(2) Six were making advances to settlers in such forms as buildings and livestock, four of them in combination with easy terms of payment.

(3) One was making advances part of the time, the settler having an option in the matter.

(4) One had made no advances, but provided liberal credit instead.

The following is a brief description of each of the 15 projects. These projects will be known throughout the remainder of the bulletin by the numbers which are here attached to them:

I. A land company selling land acquired mostly from small holders, to Finnish settlers on regular land contracts running mostly for 5 or 10 years. Many of these Finnish settlers had farmed elsewhere in the Lakes States before coming here. The land is an unusually good quality of outwash plain with heavy second-growth timber upon it. No improvements were furnished and no credit advanced.

II. Similar to project I, except that the land was acquired wholesale out of railway grants and lies in alternate sections and except that one group of the settlers was originally composed of Belgians, an effort having been made to colonize them directly from Europe. Part of the land is very hilly, but the hills are of clay till. The contracts were the regular 5 and 10 year types.

III. A lumber company selling its land through a land department as soon as the timber was removed. The settlers were predominantly of the farmer type and had considerably more than average means. The program was a mild one, but the land is of unusually good quality and was selling readily. The contracts were partly of the regular sort, usually running for 8 years, and partly 13-year contracts with a 5-year exemption from payments on the principal. This company did not approve of paternalistic methods, and gave no aid and little if any supervision to settlers.

IV. Another long-established colony largely consisting of foreigners. No advances were made and no credit aid was provided. Later, many of these contracts were converted into 30-year amortization mortgages. The land is generally of good quality, but part of it is hilly and stony.

V. A lumber company with a land department which started out on a plan to advance improvements and livestock to settlers and to give general supervision and aid, but abandoned it almost at the outset. At the time of the survey the company was selling land under regular contracts, usually running for 5 or 10 years, with rather small initial payments. The original plan was to make it an all-Scandinavian colony, but this was soon abandoned. Part of the land is unusually good.

VI. A large land company selling land acquired partly from lumber companies and partly from small holders, mostly to native-born farmers or city

workers born and reared on farms. Most of the contracts ran for five years with rather large initial payments. This company used strong selling methods, but sold to prospects with much more than average means. Subsequently, this company was instrumental in securing credit for the settlers and aid in land clearing. The land ranges from light sandy loam to heavy sandy loam. Some of it is too sandy for safe farming.

VII. A company selling land at present under regular 9 to 10 year contracts, giving no credit aid to the settlers and making no advances. However, it has helped to establish markets, schools, churches, a bank, and a creamery. It has also maintained a sort of demonstration farm. The settlers were mostly foreign-born, Bohemians being the most numerous and Scandinavians next. However, over a third of the settlers had had some experience in the United States as owners, tenants, or laborers. The land is low and flat and subject to frosts, and on the whole the most difficult to colonize of any encountered.

VIII. Another lumber company which was selling its land as fast as the timber was removed. It was attracting city people of the back-to-the-land type who worked in the sawmill and lumber camps and were clearing their land rather slowly. This company frequently gave credit at the company store for lumber, dynamite, seeds, etc., protecting itself as best it could out of the wages earned in its sawmills and camps. A small amount of supervision was furnished. The contracts were of the usual sort, generally running for only three to five years. The initial payments required were lower than usual and options were frequently employed. The land was of good quality.

IX. A company which secured control of a large block of land for the sake of colonizing it. It advanced buildings and livestock and a little equipment, and supervised the settlers rather closely. The contracts usually exempted the settlers from payments for the first two or three years. The initial payments were rather large, but not in proportion to the advances made. The development of the colony was planned in advance. The land is of good quality, although stony in spots. The settlers surveyed were over half foreign born, Polish being the prevailing nationality. The settlers had less than average means.

X. A company very similar to the foregoing as to most methods and policies. Only a third of the settlers were foreign born, of several nationalities. In addition to other advances this company supplied horse labor for land clearing and brushing.

XI. A colonizing company selling a block of land for two lumber companies. The lumber companies were largely financing the operations. The advances to settlers were liberal, but in return the settlers were closely supervised and securely tied in the contracts. At the start this company advanced buildings and livestock, but it presently substituted building material for buildings. The land is of very mixed quality, some of it sandy and some of it rough. However, the company classified its land rather carefully. The usual contracts provided five years' exemption from payments on the principal. The initial payment was small, considering the liberal advances that were made.

XII. A company which acquired a block of land for the purpose of colonizing it after the manner of city development projects. Roads were laid out and constructed, hotels and stores were built, and farm buildings costing about $2,000 per farm were erected. The contracts were for short periods and provided for no exemptions. The settlers were mostly of the back-to-the-land type. The land is 20 miles from town and of only fair quality.

XIII. The land department of a lumber company which was selling a large tract of land left after lumbering. The land averages only fair in quality, even after the sandiest and roughest portions of it have been excluded from settlement. The policies of this company were extremely liberal, including brushing small areas of land in advance, advancing of buildings, livestock, use of horses and equipment, feed, seed, and even living expenses. The settlers were of very small means, were nearly all native born, and nearly all had some farm experience. The supervision was very close.

XIV. The land department of a large lumber company which had undertaken colonizing on a large scale, acquiring additional land for this purpose. The land was sold under liberal 10-year contracts with 1-year exemption from payments on the principal, and advances of either building or building material and of livestock were made if the settlers desired. Also, land was cleared in advance for a few of the settlers. The settlers were 60 per cent foreign born, Scandinavians predominating. The land is mostly of good quality, although stony in stretches.

XV. A company which had practically completed the selling of its block of land some years ago. The land was sold at the low prices then prevailing and many of the settlers completed their payments before moving on to their holdings. Many of the contracts provided for small installment payments. The usual period of the contract was five years. The outstanding feature of this company's policy was liberal credit in place of advances of buildings and livestock. However, the company supervised the settlers closely in spending these borrowed funds, and aided them in many other ways. The settlers are all foreign born and of one nationality and religion. The land is heavy red clay.

PROBLEMS AND METHODS OF LAND SETTLEMENT

No two of the companies studied were alike as to conditions affecting settlement and methods followed. It is therefore worth while to study their problems and methods in detail.

CHOICE OF AREA

Choice of an area is a problem only for agents and dealers. The owner of a tract of cut-over land has no choice except to put his land on the market or continue to hold it. Some of them are deciding one way and some another.

There are three things to consider under choice of area: Quality of the land, its layout, and the size of the tract. Table 10 presents the principal facts under these heads for each of the 15 projects.

The area of land in these projects varied from 10,000 to 150,000 acres. Some of the interests connected with these 15 projects owned or controlled additional tracts elsewhere. A small tract does not warrant the building up of a large sales and service organization. If the tract is very small, say less than 5,000 acres, it is a one-man affair unless it is a part of a general agency or dealer business. Consequently, the selling program will be mild, and the supervision can be only of an occasional and sporadic character. Even a 10,000-acre tract is small for a colonization enterprise, unless the project is one of several so that the selling and other overhead costs can be divided between them. It will be observed that the intensive colonization enterprises, such as projects IX, X, XI, and XIII, all chose areas of 20,000 acres or over. The companies handling projects IX and XI consider the particular projects studied as only one in a series and have built up organizations on this assumption.

If the land must be acquired before it is sold, it is practically necessary that the tract be held in a few hands; for it needs to be fairly compact and it is difficult to get a large number of landholders to agree to sell all at one time and at a reasonable figure. It is because this can not usually be done when the ownership is well scattered that the agent-dealer type of business has developed in northern Minnesota.

The further significance of the layout of the tract is as follows: A considerable part of the margins obtained by land companies arises from the increase in the price of wild land as the area fills with settlers, as buildings are erected, and as the land is cleared back from the road. If the interspersed holdings are not developed at the same time, they dilute the effect of the company's development work, and besides the owners of these holdings receive some of the increments in price that have been earned by the company. If roads have to be built, this is especially true. No company studied was

doing road building at its own expense unless it controlled nearly all the immediate territory. The same is true, although in a less important way, in the establishment of schoolhouses, creameries, and stores. The expenses of supervision and furnishing aid to settlers is also considerably increased if the area is scattered.

No companies are following intensive colonization methods on widely scattered tracts. Project XI had the most widely distributed holdings, and it was experiencing the full consequences of this condition, especially in the matter of road building.

Table 10 shows the percentage of the different classes of land included in the plats sold to the settlers covered in the surveys. As a matter of fact, a considerable part of the land in most tracts is too rough and too stony or too wet to sell to settlers for general farming and was not included in settler's plats. The area of this noncultivable land not included in settler's plats varied greatly with different companies, being especially high with Projects XI and XIII. The variation, however, is partly a matter of accident. If the noncultivable areas are small, they are usually sold with the adjoining cultivable land; if they are large, only a portion of them can be so included. The price at which the land is sold should take account of the amount of noncultivable land included. The presence of such land is almost as serious an obstacle to colonization methods as interspersed owners.

The proportion of the land sold to the settlers which is in merchantable timber depends upon the condition of the timber, the length of time since it was logged off, and whether it has recently been burned over. It also depends upon the policy of the company as to removing the timber before selling the land. It will be noted that the range was from 0.6 to 63.3 per cent, the latter percentage being representative of companies that are selling land with a heavy second growth and not logging them in advance. The best choice in this matter depends upon many things. The easiest lands to colonize, at least at the start, are those that have recently been burned over and those with a light covering of second growth. However, if the market is good for timber products at the time, the timber may pay well for the cost of removing it, whether the company does it or it is left for the settler. In either case, it furnishes a much-needed market for the settler's labor during the first few years after settlement.

The task of establishing settlers on good land is so much simpler and pleasanter that one wonders why any land company should ever choose poor land. There are several reasons why poor land is frequently sold: (1) The most important of these reasons is that it may be more profitable to carry on certain types of business with poor lands than with good lands. (2) In the territory in which the members of the company grow to manhood, only poor or fair land may be available. Nevertheless, the whole community is anxious to see this land made into farms, and so are the land men. In such cases, the best interests of the particular settlers are frequently a minor consideration. (3) The land may have been acquired for other purposes, usually lumbering or mining or as a railway grant, very little attention being given at the time to its agricultural possibilities. (4) The land may have been acquired for speculative purposes, and the speculator subsequently compelled to

dispose of it through inability to hold it or the undesirability of holding. (5) Poor land frequently has to be bought along with good land; and when the good land is all sold, the company in many cases will start selling its poorer lands. Or the good land in the region is mostly in farms and the company prefers to sell its poor lands rather than move. This applies to a slight extent to Project VI.

Settlers prosper most at first on the moderately light soils. Such soils are easier to clear than the heavier soils, and their plant foods are more available, so that crops do better at the start. But unless some constructive type of agriculture that maintains the fertility of the soil is developed, the prosperity will soon vanish. It may last long enough, however, to see the company through.

At the other extreme are heavy clay soils which are hard to clear and slow to adapt themselves to crops, and which in the end may not be so well suited to northern farming as warmer and somewhat lighter soils. Project XV had land of this type.

Obviously the companies with land between these two extremes are most fortunate. The heavy sandy loam and silt loam soils are the best soils for colonization purposes. All but a few of the projects were selling land with soils mostly of these types, but their land was by no means all equally good. Some was not well-drained; some was very stony; some was rough and rolling; some had only an inch of humus on the surface.

CHOICE OF SETTLERS

A land company can very largely determine by its sales methods, advertising, terms of sale, and credit arrangements the kinds of prospects who will come seeking land; and then by some system of selecting prospects, it can weed out most of the undesirables among those who become interested. The technique involved is discussed later.

A company may elect to make its appeal mainly to native American farmers with considerable capital; it may direct its selling campaign toward persons of foreign birth who have been in this country for some time; or it may look toward native-born Americans engaged in city occupations. The last class includes some "back-to-the-landers," who have been brought up on farms but have subsequently migrated to the city; and it usually includes some "forward-to-the-landers," persons who have never lived on a farm, but who would like to try their hands at farming.

All the settlers were asked why they had become settlers in the cut-over region. Some of them gave two or three reasons. Following is a summary of their answers, the figures in parentheses indicating the number who gave each class of reasons:

1. "Wanted a farm of my own" (121). This is the characteristic answer of the tenant and of the "back-to-the-lander" who was not getting ahead in his previous occupation; also of some classes of foreign born.
2. "Land rents (or prices) were too high where I formerly lived" (40). A frequent answer given by farmers' sons and former tenants.
3. "Wanted better land" (59). This answer represents mostly the farmers deserting the semiarid regions west of the Missouri River, the sandy lands of central Wisconsin and Michigan, the depleted soils of the East, and stony, hilly lands anywhere in the North Central States.
4. "Wanted a home of my own" (46). This is the characteristic answer of the city wage earner who had not been saving any money.

5. "Better living on the farm" (85). Closely related to the last reason, and the characteristic answer of former factory workers. The "high cost of living" in cities, from 1917 to 1920, made many farm-born city workers think longingly of the cheap food, fuel, and shelter they knew in their youths.

6. "Disliked my present work" (59). Because it was too monotonous, too dangerous, or too uncertain by reason of strikes and unemployment periods. A characteristic answer of former miners and metal workers.

7. "Thought I would like farming" (94). Characteristic answer of the "forward-to-the-lander" and of the "back-to-the-lander" who left the farm early. It is because farm work is out-of-doors and "the farmer is independent," that farming appealed to most of this class.

8. "On account of my health" (26).

9. "Family reasons" (15). Such as health of children or to be near relatives.

The settlers who were farmers prior to settlement consisted of tenants, farmers' sons who preferred to own a cut-over farm to renting an improved one at home, and all sorts and descriptions of farm operators who for various reasons sold their farms in other North Central States and decided to try their fortunes with cheaper lands. The reason these people usually give for becoming settlers is that land is too high where they formerly lived. Interpreted, this statement means for some that they believed that although they could make money in farming in their former homes, they could make still more money on the cut-over land. For more of them, however, it meant that they had found themselves unable to get ahead on the land at home at prevailing prices, and that others more efficient had outbid them for the land. Thus, competition had operated to force the poorer farmers onto the less desirable lands. Again, there were others whose particular qualities rendered them better adapted for success on the cheaper cut-over land than on the high-priced improved land. Men of some ability and initiative are usually at a premium in a new country and are therefore afforded opportunities for service and advancement which they could not expect in an older country. Financial success of farmers is often founded in part upon leadership in other fields.

TABLE 10.—*Description of areas*

Area	Size of area	Soil types	Land classification					
			Merchantable timber	Brush and stumps	Marsh land	Water and bog	Improved[1]	Not cultivable
No.	*Acres*		*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*
I	10,000	Heavy sandy loam	63.3	18.3	8.3	6.5	4.6	9.5
II	50,000	Heavy sandy loam and clay till	20.7	47.9	14.2	3.0	14.6	9.3
III	50,000	Silt loam	40.9	53.1	2.9	1.1	.9	3.0
IV	20,000	do	4.2	81.1	9.0	5.2	.5	8.0
V	40,000	do	36.9	53.8	.5	2.6	6.2	11.6
VI	150,000	From heavy to light sandy loam	3.7	78.0	7.1	8.6	2.5	10.7
VII	[2] 100,000	Clay, muck, and peat	1.7	84.1	.7	6.0	7.5	2.0
VIII	50,000	Heavy sandy loam	20.4	78.0	.1	.2	.3	2.4
IX	50,000	Silt loam	.6	85.0	5.6	7.5	1.3	9.6
X	20,000	do	2.0	87.5	4.7	4.4	1.3	7.4
XI	150,000	Fine sandy loam to light sandy loam	11.3	77.5	6.6	4.6	6.6	22.0
XII	20,000	Mixed clay till	6.3	74.6	9.2	5.1	2.6	10.6
XIII	60,000	Fine sandy loam and silt loam	9.6	77.5	4.6	6.2	2.1	11.1
XIV	100,000	Silt loam	2.3	87.6	2.6	6.6	1.0	10.7
XV	11,000	Red clay	1.4	89.0	1.2	5.2	3.3	19.8

[1] Cleared or brushed by former settlers on same holdings or by land company in advance of settlement.
[2] Arbitrary. This company controls 700,000 acres in 12 counties.

The native-born city people who go to the cut-over country are usually farmers' sons and daughters who left the farm for the city to make their fortunes, and having had a sample of both, have decided that, after all, they will prosper better in the country. Such people usually shrink from returning to their old homes and starting in as laborers and tenants. They therefore easily accept the idea of a farm of their own in the cut-over country. With these people, too, there is a wide range in quality. Some of them are fagged-out and almost without real hope. Others are full of fresh hope and fighting spirit. They also vary in their knowledge of farming. Among them are always some who know practically nothing about farming. It is the almost unqualified testimony of all land companies that very few of this kind succeed. Many land companies will not sell to them.

Foreigners who become settlers in this region more often come out of mining than any other industry. By nationalities, they rank roughly as follows: Finns, Poles, Scandinavians (Swedes, Norwegians, and Danes), Germans, Slovaks and Croats, Bohemians, Dutch and Belgians, Hungarians, Lithuanians, Italians, etc. The Finns are most numerous in Minnesota and the northern peninsula of Michigan, the Poles in Wisconsin and the southern peninsula of Michigan. Most of these foreigners lived or worked on farms in Europe, although there are notable examples of foreigners who came out of European city industries. These have generally fared about as poorly at the start as did the Pilgrim Fathers in New England.

Experience of the projects studied tends to show that those who come directly from farms usually insist upon growing corn or wheat and doing other things suited to agriculture where they came from, but not adapted to conditions in the new region. They often bring horses and heavy machinery with them which they will not be able to use for several years. Sometimes they bring several head of cattle and find they can not carry them through the first winter. Frequently they want to start with too large an investment in buildings. Such men are usually hard to advise. They think they know more about farming than the land companies, when as a matter of fact they were in many cases only indifferent farmers where they came from. A principal defect of many of these farmers is that they can not organize and lay out their work to advantage. In many cases their farm experience has not included the clearing and gradual subduing of land to farming. Finally, their standard of living may be higher than pioneer farming will afford, or it may not be on the self-sufficing basis so necessary in a new country.

City settlers of American birth are not so hard to advise, but they are usually less apt in handling horses and tools and less able and less willing to do a hard day's work. These settlers are likely to be poor managers. Too many of them are persons with no farm experience who have entirely unreal notions of the requirements of success under pioneer farming conditions. They have read idealized articles in magazines portraying the possibilities of making a quick fortune from highly intensive farming.

Most foreign-born settlers can be depended upon to endure greater hardships and more severe exertion, and to be content with slower progress than the native born. They are therefore more likely to stay with their undertakings under severely unfavorable conditions than

either of the other two classes. They are more thrifty, more familiar with a self-sufficing way of living, and more familiar with the intensive hand type of agriculture needed in the first few years. They are more willing to leave home to work out and earn the money needed to feed and cloth their families and to make payments on their contracts. However, there are among them many who have been in this country so long that their ideals and standards of living are essentially American, especially if they have been living in cities, and it seemed to be particularly this class of foreign born that some of the companies have attracted.

A few companies have pronounced scruples against selling to foreigners. One reason assigned is that an all-foreign community frequently does not progress so rapidly in the long run. Another is that Americans will not buy in a community where foreigners predominate. For this reason, several companies have tried to keep their settlers well mixed as to nationality and origin. It is not hard to do this if the advertising is all in English newspapers.

The summary of survey material for the 15 land-settlement projects which were included in Table 10 shows that of a total of 583 settlers surveyed, 313 were born in foreign countries. Only 174 of the 583 were engaged in farming at the time they became settlers; all the others were in occupations that may be regarded as urban in character, with a possible exception of 50 engaged in mining. All but 69 of them, however, reported some farm experience at one time or other. Of the remainder 1,132 reported that they had had experience as owner-farmers, 88 that they had had experience as tenants, and 94 that they had had experience as laborers. In addition, 187 reported having been born and reared on farms. Without doubt, in most cases some knowledge of farming was derived from this experience, but much of it was on peasant farms in Europe. This is also true of a considerable number of those having had experience as farm laborers. This European experience may not be of great advantage on cut-over land in the Lakes States. Of 278 cases reporting the number of years they had been engaged in farm work, 157 had 5 years or less experience; 50 had from 6 to 10 years; 34 from 11 to 15 years; and 37 over 15 years. The conclusion drawn from this analysis is that enterprises included in these surveys followed, fairly consistently, the policy of selecting persons who had lived on farms some time in their lives.

When the statistics obtained from the surveys are analyzed according to the foregoing classes, it appears that the foreign-born settlers started settlement with a beginning net worth of $1,247 as compared with an average of $1,197 for the native born. Those who came direct from the occupation of farming (comprising both native born and foreign born) had an average net worth of $1,764, whereas those who came from other occupations had an average net worth of only $991. The average for all classes of settlers was about $1,100. The farmers' sons, tenants, and farmers usually brought from $1.000 to $3,000 worth of cash and property, although many of them had practically nothing. Great numbers of those who came from cities had only a few hundred dollars. Many of them had a city home to sell or trade in. The American born were likely to have even less than the foreign born; it is more often lack of thrift than anything

else that has put them where they are and made them back-to-the-land pilgrims. The foreign born were usually thrifty, but their wages were relatively low, and many of them had not been earning American wages very long.

The average of the net gains of the native-born settlers was very much greater than for the foreign born, the former amounting to $929 per year of settlement and the latter $397. These averages represent to a large extent increases in land value, attributable either to clearing or to the general rise in the level of value. The average purchase of the native born averaged a little over 77 acres, and that of the foreign born only 67 acres. Thus the native born had a slight advantage from the increase in land values, although scarcely enough to account for 10 per cent of the disparity between the two groups in net gain.

Similarly, those who were engaged in farming just prior to becoming settlers made an average net gain of $714 per year as compared with $420 for those who had been engaged in other occupations. A little of this gain can be attributed to the fact that they purchased an average of 14 more acres of land than the others.

TABLE 11.—*Rate of land clearing of 510 settlers on 14 different projects, by class of settlers*

Class of settlers	Average acres cleared per year per settler		
	Cleared of stumps	Brushed only	Marsh clearing[1]
Native born	3.01	3.84	1.32
Foreign born	2.06	1.74	0.77
Formerly engaged in farming	2.82	3.00	1.69
Formerly engaged in other occupations	2.23	2.26	0.70
Average for all classes	2.38	2.45	0.95

[1] Largely removing fallen logs and roots of stumps.

Table 11 shows that the native born cleared land faster than the foreign born, and those coming directly from farming cleared faster than those coming from other occupations. The difference is especially notable in brushing and marsh clearing. This better record in clearing made by the farmer class is probably due in part to their considerably larger beginning net worth, which enabled them to spend more time in clearing rather than in outside work. However, the native born started with a smaller net worth and yet made more progress than the foreign born in net gain and in clearing.

TABLE 12.—*Classification of 509 settlers in Wisconsin and Minnesota, by age*

Age period	Number of settlers	Age period	Number of settlers	Age period	Number of settlers
Years		*Years*		*Years*	
Under 25	15	40 to 45	76	60 to 65	15
25 to 30	55	45 to 50	59	65 to 70	3
30 to 35	105	50 to 55	52	70 to 75	1
35 to 40	101	55 to 60	27		

Table 12 gives the age classification of 509 of the 583 settlers. The age given is that at the time of the survey. The average age was 40 years. The average period since settlement of this group was 2.7 years, so that the average age at the time of settlement was 37.3 years. At the time of the survey two-fifths of the settlers were between 30 and 40 years of age, and four-fifths were under 50. Thus a fifth of them were 50 years of age or over, which is past the prime of life.

Table 13 shows in detail the beginning net worth for 451 of the settlers on 11 of the projects. In general, the beginning net worth of the settler is higher with age, except for the very oldest, but it is not proportionately higher. Those under 30 years average about $700; those between 40 and 55 about $1,200; and those between 50 and 60 about $1,600. A man who is worth only $1,600 at 50 years of age is not very promising material for land settlement in the cut-over regions. In general, the settlers were not a very prosperous lot of people at time of settlement. Fifty-seven per cent of the settlers were worth less than $1,000 at the time of settlement. Yet they expected to be able to undertake and manage independent farming enterprises.

TABLE 13.—*Beginning net worth of 451 Wisconsin settlers*

Beginning net worth	Number of settlers	Average age of settlers	Average acres in purchase	Beginning net worth	Number of settlers	Average age of settlers	Average acres in purchase
Less than $0	10	38.7	61.4	$1,600 to $2,000	22	42.8	72.6
$0 to $200	47	40.6	51.9	$2,000 to $2,400	24	43.5	71.0
$200 to $400	64	39.3	52.8	$2,400 to $3,200	25	44.8	89.4
$400 to $600	47	35.0	52.5	$3,200 to $4,000	5	52.4	62.0
$600 to $800	55	38.4	57.7	Over $4,000	17	44.5	195.0
$800 to $1,000	36	38.8	62.7				
$1,000 to $1,200	39	38.5	62.4	Total	451	40.0	67.3
$1,200 to $1,600	60	40.5	73.4				

Of the 510 settlers on 14 projects, 45 were single men, 65 were without children, and 18 were brothers working in partnership or old men working with adult sons. The remaining 382 averaged 3.4 children per family at the time of the survey. The group of foreigners averaged 4.4 children per family. The group made up mostly of native-born farmers averaged 1.5 children per family. Of the 382 families with children, 172 had 3 or more children, 104 had 5 or more children, and 14 had 8 or more children. In 150 families, all of the children were under 10 years of age, and 34 families had 4 or more children under 10 years of age. Only 110 had any children, either boys or girls, 15 years old or over. Thus, the families of the settlers with children were, on the whole, more of a burden than a help in the early stages of land settlement.

A comparison of the different colonies as in Table 14 shows that very different policies have been followed in choice of types of settlers. Eight of the firms have especially sought foreign born and four of them especially native born. It is also apparent from the figures that a number of the companies are selling largely to "back-to-the-landers," especially Projects V, VIII, XIII, XIV, and XV; and other companies largely to farmers, especially Projects I, II, III, and VI.

The differences in average beginning net worth are very significant, ranging from $292 to $3,259. For most of the companies practicing intensive colonization methods the average beginning net worth was not far from $1,000, the range being from $292 to $1,111. The companies making no advances to settlers were securing settlers with more farm experience and more savings.

Next to farmers, the settlers coming from metal-working trades and other trades made the most progress. Those coming from factories and shops made the least progress, and common laborers next to the least.

TABLE 14.—*Types of settlers on 15 projects in Wisconsin and Minnesota*

Classes	I	II	III	IV	V	VI	VII	VIII
Per cent of foreign born	73.0	73.0	22.5	83.3	65.0	9.5	90.0	33.3
Nationality comprising largest percentage of foreign born	Finns	Finns	Germans	Poles	Scandinavians		Bohemians	Poles
Per cent of settlers directly from farms	76.0	64.0	45.1	16.6	19.0	42.8	21.0	16.6
Average farm experience of these (years)	9.0	7.2	7.1	13.4	4.0	12.2	4.0	3.9
Per cent merely raised on farms	8.0	13.0	9.7	11.1	47.6	23.8	13.0	66.7
Per cent with no farm experience	0.0	13.5	9.7	33.3	14.3	14.3	23.0	16.8
Per cent from trades and metal workers	0.0	5.0	12.9	16.6	28.5	33.3	20.0	30.0
Average beginning net worth	$1,828	$1,223	$1,821	$1,106	$832	$3,259	$1,377	$1,086
Average age at settlement (years)	38.1	32.3	38.6	34.7	35.8	41.4	36.1	37.7

Classes	IX	X	XI	XII	XIII	XIV	XV
Per cent of foreign born	55.6	29.3	22.7	0.0	16.0	60.7	100.0
Nationality comprising largest percentage of foreign born	Poles				Germans	Scandinavians	Slovaks
Per cent of settlers directly from farms	24.7	32.7	19.0	35.3	26.0	33.3	3.7
Average farm experience of these (years)	6.8	6.8	6.0	10.4	5.1	6.5	4.4
Per cent merely raised on farms	34.0	5.2	19.1	10.0	40.0	45.1	81.1
Per cent with no farm experience	12.4	8.6	23.3	10.0	0.0	11.8	3.8
Per cent from trades and metal workers	21.6	20.6	52.3	43.0	12.0	25.4	9.4
Average beginning net worth	$1,086	$1,111	$974	$2,086	$292	$1,338	$1,034
Average age at settlement (years)	37.8	37.6	37.0	38.1	36.6	39.5	34.1

One aspect of the problem that must not be overlooked is that the type of settlers solicited depends to a great extent upon the character of the land and location of the area. If the land is of good quality and not too hard to clear and if it is rather close to a city which affords a good market, in ordinary times it can be readliy sold to farmers or farmers' sons of considerable means, or to city or village workers who have not been too long away from the farm. On the other hand, if it is stony land or poorly drained or if it is heavy clay or hard to clear, it can be sold only very slowly to prospects of the kind just described. This is almost equally true if the area is in the wilderness, far removed from civilization. Under such circumstances, it is only feasible to solicit foreign-born prospects or native-born city workers with small means. To attract

even these, a selling scheme needs to be devised with such features as easy terms of payment and advances of buildings and livestock. Lastly, once such settlers have been secured, some plan must be devised for taking care of them until they can support themselves from their holdings.

The rate at which the land must be sold also affects the selection of settlers. A score of prospects of small means can be interested in a scheme which provides for credit advances and the like, to one prospect of the farm-minded type with several thousand dollars to invest.

TERMS OF SALE

Land is usually sold in the undeveloped parts of the Lakes States under one of the following arrangements, approximately in the order of their prevalence:

(1) Small payment down, ordinarily $1.50 to $3 per acre, on land contract until all payments are made. Usually equal annual payments are required.

(2) Same as above, except that a mortgage will be substituted for a contract when, or if, one-third or one-half of the purchase price is paid.

(3) Payment of $250 to $600 down for 40 acres (somewhat more for 80 acres) with buildings included; a land contract for a nominal period, replaceable by a mortgage as soon as land clearing and other improvements made by the settler increase the value of his equity enough to support the mortgage.

(4) Any of the above arrangements, with one, two, three, or five years' exemption from payments on the contract.

(5) Any of the above arrangements, with an option for a short period, sometimes as long as two years, this option usually calling for quarterly or monthly payments; at the end of the period called for in the option a contract is given.

(6) An option for a longer period, usually four or five years instead of a regular land contract.

Table 15 shows that most of the farms purchased by settlers are bought, in the first instance, under contract. The periods of contracts range from 3 to 20 years, 5-year contracts being most common, 8-year next, and 3-year next. Over a third of them are for 5 years, a fourth for 8 years, and a sixth for 10 years. The tendency is toward the longer periods.

Table 16 shows that four companies are using options freely and that several sold considerable land under mortgages.

TABLE 15.—*Number of settlers purchasing under different types of conveyances*

Type of contract	Number of settlers	Average initial payment	Percentage initial payment is of purchase price
Option or lease	64	$81	5.7
Contract	382	449	23.3
Deed subject to mortgage	33	1,671	52.3
Cash in full	25	1,354	100.0

TABLE 16.—*Terms of purchase on 15 projects in Wisconsin and Minnesota*

Items indicating terms of purchase	I	II	III	IV	V	VI	VII	VIII
Average purchase price of farms	$3,183	$1,574	$1,880	$1,082	$1,593	$3,167	$1,167	$1,093
Initial payment (on all conveyances)	$416	$188	$567	$342	$235	$1,636	$208	$236
Percentage initial payment is of purchase price on all conveyances	13.1	12.0	30.1	31.6	14.7	51.7	17.8	21.6
Percentage initial payment is of purchase price on all contracts	13.5	14.9	24.6	23.0	10.8	35.7	20.0	14.9
Percentage of settlers' beginning net worth paid on all purchases	47.0	35.7	31.1	30.7	29.4	50.2	35.0	21.7
Percentage initial payment is of initial farm capital	22.7	23.7	26.7	22.2	13.7	45.9	15.2	19.2
Percentage of sales on contracts	72.0	68.0	87.0	88.8	66.6	57.1	93.0	63.3
Percentage of sales on options	8.0	0	0	0	14.0	9.5	0	23.0
Percentage of sales with title paid in full or on mortgages	20.0	32.0	12.9	11.1	14.2	33.3	7.0	13.3
Average term of conveyances (years)	6.67	6.92	8.78	5.25	7.08	5.25	8.20	5.26
Modal term of conveyances (years)	5	5	8	5	8 and 10	5	10	3 and 5
Interest rates on contracts	6.89	6.20	6.00	6.22	6.07	6.00	6.00	6.00
Average value of buildings, livestock, etc., purchased with farm	0	[1] $295	[1] $24	[1] $26	[1] $158	[1] $108	0	[1] $29

Items indicating terms of purchase	IX	X	XI	XII	XIII	XIV	XV
Average purchase price of farms	$1,963	$2,593	$1,995	$4,796	$1,384	$1,652	$977
Initial payment (on all conveyances)	$383	$411	$477	$59	$74	$393	$428
Percentage initial payment is of purchase price on all conveyances	19.5	15.8	23.9	12.4	5.3	23.8	43.8
Percentage initial payment is of purchase price on all contracts	18.9	15.1	23.9	17.9	5.3	18.9	16.1
Percentage of settlers' beginning net worth paid on all purchases	35.3	37.0	42.6	75.0	25.4	29.4	41.4
Percentage initial payment is of initial farm capital	17.9	15.8	23.4	34.2	4.8	22.1	43.1
Percentage of sales on contracts	97.9	89.6	95.2	75.0	8.0	88.2	73.5
Percentage of sales on options	0	2.0	5.0	0	92.0	4.0	0
Percentage of sales with title paid in full or on mortgages	2.0	18.6	0	25.0	0	7.8	26.4
Average term of conveyances (years)	5.88	7.51	7.35	6.83	4.00	9.78	4.87
Modal term of conveyances (years)	5 and 8	8	5	5	4	10	5
Interest rates on contracts	6.61	6.00	6.00	6.00	6.00	6.00	6.15
Average value of buildings, livestock, etc., purchased with farm	[1] $392	[1] $507	$258	$1,465	$258	$197	[1] $111

[1] Represents a few resales, a few old logging camps, and a few partly improved farms taken into the project.

In a number of cases the principle of deferred payments is employed. No payments other than interest are required for from one to five years after settlement; but the settler is expected to keep up interest and taxes, except in the case of two colonization companies which also permit the deferment of interest for from three to five years. In practically all cases where this principle is employed it is conditioned upon immediate settlement, usually within a year, and in most cases upon the making of a certain amount of progress in improvements.

Under such conditions the principle of deferment of principal would appear to rest on a sound basis and to be particularly adapted to the conditions of the Lakes States, where the settler is compelled to spend a number of years after settlement in clearing land and making improvements before he realizes any returns from his farming. Frequently the company is compelled to give the settler credit for development purposes. In such cases there is little point in requiring payments on the one hand while extending loans on the other.

Some concerns prefer to embody in their contracts a requirement for payments beginning the first year. Some of the very best colonizing has been done under such contracts, the companies granting extensions freely to all deserving settlers. These companies justify this practice on the score that it is well to have the settler under obligation to them, that it compels him to keep in touch with them and report his progress. The only objection is that some settlers prefer to stand on their own feet, arranging their affairs with the company in a strictly business way. This implies a contract which they can reasonably be expected to carry out and a 5-year contract with equal payments is not such a contract in a large majority of cases.

The most liberal contract written by any of the companies studied is one running for 13 years with no payment on the principal for the first 5 years. Almost as liberal is the contract of another company, granting exemptions for 5 years on both principal and interest, but running for only 10 years. The 10-year contract with 1-year exemption written by another company is also reasonably liberal. A long-period contract reduces the payments to an amount so small that the settler will frequently be able to meet them. Even long-period contracts should provide exemption at least from payments on principal for the first three years.

For many of the companies that are buying the land they colonize, the period of the contract is largely nominal. It is expected that the settlers will make such improvements on their farms that by the end of the exemption period the company will be able to sell or use as collateral a mortgage against the farm for the full amount of the original indebtedness. Such companies never expect the settlers to make any payments on their contracts. That their expectations were being realized is witnessed by the fact that all but 2 of 42 settlers on one project using this method had secured title subject to mortgage in five years or less; and upon a still newer project nearly as high a proportion had secured titles subject to mortgage in less than three years. Probably such mortgages have not of late been accepted as collateral as freely as during the inflation years, 1917 to 1920. The only reason for naming a period in a contract under such circumstances is that a contract must have a period, and the only reason for making it for as short a period as five or seven years is that it may act as a sort of penalty for the settler who does not clear the land as rapidly as he should. No company can be sure that it can sell mortgages of this sort whenever it wishes, hence it may not even mention the mortgage arrangement in the contract it writes.

None of the companies adhered strictly to one form of contract, which is no doubt wise. For example, most companies would make more liberal arrangements in the matter of payments if the settler made a large initial payment. A frequent arrangement in such cases was "any payment at any time" within three or five years. Most of the companies would lengthen the usual period rather than lose a sale.

A few companies wrote some contracts calling for monthly or quarterly payments. The land in such a case is made a sort of savings proposition. The buyer meets the payments out of wages earned in the company's sawmills and camps or on some job in the city.

The amounts of the annual payments called for ranged from $50 to over $700 in a few cases, the variations depending principally

upon the size of the purchase, the price per acre, the initial payment, and the period of contract. Most were between $100 and $300. A considerable number of contracts scaled the payments upward from about $50 the first year or the first year after the exemption period. That many land companies reduced the matter of size of payments to such detail indicates that they were still living in the faith that such payments could be met. Data included later in this bulletin will make it clear that under the conditions of cut-over land settlement this is largely a delusion, except when the settler has a regular job, as in a sawmill.

Of the 64 options, 47 were for four years. These 47 were all on Project XIII, which used a peculiar form of option which it called an "option lease." All that the settler was required to pay down at time of purchase was $10 on a 40-acre tract. Thereafter he was expected to pay $10 a month rent, to be applied on the principal at any time within four years that he exercised his option to purchase. In case the settler did enough work on his holding, the $10 a month was to be deferred. This option might be converted into a mortgage or kept in force until all payments were made, provided the settler was satisfied. It is possible that the courts would decide that such an option made out for a period of years in lieu of a contract is to all intents and purposes a contract; that the settler, by virtue of his accumulated payments and improvements on his land, has acquired an equity in it, and that the land company will need to go through the same process to cancel as with a contract.

One reason for using an option is that a good many prospects sign for a piece of land with a small amount down and then for some reason drop their payments. An option made under these circumstances can be closed out more easily than a contract. The amount paid down on an option is supposed to recompense the land company for the trouble and possible loss sustained in holding the land off the market and keeping it in reserve for the buyer until he is ready to take possession. Small amounts paid for this purpose give the settler no equity in the land.

Another reason for using the option is that frequently a prospect wants a piece of land but does not have sufficient funds to pay down on a contract. Rather than lose the prospect, the company accommodates him with an option. A few companies were selling a good deal of land on option to city laborers with provision for payments on the installment plan. Some options stipulated that the settler should not move onto the land until he had secured his contract, but most of them allowed the settler to move on.

Closely allied to the option are the "application to purchase" and "field agreement" made out by the sales agent usually at the time the land is examined. These require a small payment down to bind the bargain until the contract can be drawn and closed by the central office.

The number of buyers dropping payments on options varied. With companies requiring large payments down, say one-third, before contracts are made out, as many as one-third of the buyers may drop out. With companies selling to city people on the installment plan, especially if the land is poor, or the settlement plan ill-advised, the failures may be from 50 to 90 per cent. As a matter of fact,

this formed a principal source of income with at least one land company operating in the Lakes States, and a considerable source of income on another. Land selling under such a scheme becomes a sort of device to part the prospect from a little money. The margin of payments down plus installment payments over salesmen's fees and general operating expenses may not be great, but with an efficient organization can average at least 30 per cent.

Probably as many settlers drop payments under contract as under option, but not so large a percentage because of the greater number of contracts. Much land was being sold under contract to persons who did not move on at once and many of these for various reasons let their contracts lapse. Even among those who moved on, the number who dropped payments was appallingly large in some areas. Only part of the time was it possible to sell the contract. No contracts were found which required the land company to buy back the contract, but many of the companies were doing it, at least in part of the cases. It is considered wise policy to help a discontented settler get away as quickly as possible and feeling as satisfied as possible. In almost any case, the company will have little to lose, because the improvements on the place, if the settler has made any, will more than offset the bad effect of an abandoned holding. The settler, on the other hand, has probably lost several hundred dollars of savings and earnings.

A few companies were giving titles subject to mortgages with one-third or less paid down, thus obviating in the majority of the cases the need for a contract. At the other extreme were those who sold mostly under contract, using no mortgages. Many of these companies, however, would give a deed with mortgage if the settler really wanted it. Often the settler preferred to remain on a contract basis, because he was getting along well under the arrangement with the company not pressing for payments, whereas a mortgage would have put him under definite obligations. Usually in such cases the company has demonstrated its honest intentions in the community; but it is probably wisest to give the settler a deed whenever he wants it, because it gives him a somewhat more secure tenure and is likely to prevent him from abandoning the project. Many of the companies that were using mortgages freely did so as a part of their plan of financing operations, for a mortgage is more merchantable than a contract. Five years was the usual period for mortgages, but 30-year amortization mortgages were being introduced in a few colonies.

Of 472 contracts studied, 278 called for 6 per cent interest, 8 for 6½ per cent, and 78 for 7 per cent. Table 16 gives the averages by projects. In 1919, a few were asking only 5 per cent. The companies had usually been able to borrow the necessary funds in the money centers at rates low enough to entail no direct losses at these rates. In only a few cases had losses been incurred in this way. Six per cent was less than prevailing rates on first mortgages in the northern part of the Lakes States.

The actual interest rate specified in a contract, however, is more or less nominal. The rates of interest charged and the price per acre at which the land is sold are, in a sense, simply reciprocals of each other. Five per cent interest on $25 per acre calls for approximately the same annual interest payment as 8 per cent on $15.62 per acre, but

it calls for larger payments on the principal of the debt. The theory upon which land companies were proceeding is that most of the people who buy cut-over lands are more concerned at time of purchase with their interest payments and the amount of their first payment than they are with the ultimate price they have to pay. Whether an interest rate is high or low is something everyone can determine. It is not so easy to determine whether the price charged for the land is reasonable or excessive. An 8 per cent interest rate would seem much more like profiteering to a prospect from Iowa or the Twin Cities than $10 added to the price of the land.

Table 16 gives the average size of the initial payments on contracts, options, and deeds subject to mortgage. For options, the average is 5.7 per cent of the purchase price (Table 15); for contracts, 23.3 per cent; for mortgages, 52.3 per cent. Included in this, however, are many initial payments larger than the company required, and as many more that were smaller than the supposed minimum. When individual contracts were examined, it was found that most of the companies had taken what they could get rather than lose a sale.

The average initial payment shown for contracts is too large to be typical for ordinary contracts, for it includes the initial payments of colonization firms which required a comparatively large down payment on the purchase price of the raw land, but agreed to make certain supplementary improvements, or to advance the materials for them up to an amount approximately equal to the value of the land. The standard amount required in such cases is about 35 to 40 per cent of the purchase price of land, and about 15 to 20 per cent of the purchase price of the land and improvements furnished. The land companies not engaged in colonization were selling land under contract for from $1.50 to $3 an acre as initial payment. This ordinarily amounted to from 10 to 20 per cent of the purchase price of the land.

Table 16 shows the average initial payment for each of the 15 projects, and the relation of initial payment to the purchase price, to the initial farm capital, and to the initial net worth of the settlers. Limitations of these percentages should be made clear. In the first place the initial payment is that which had been made at the time of settlement. Some of the companies had sold on option for much smaller down payments, but had not permitted the settler to go on the land until he had accumulated a larger equity. Again, the initial purchase price included much more in the way of buildings and livestock on some projects than on others. The table gives the values of building and livestock thus purchased with the land. Even in those projects where the furnishing of these extras at the start was a settled policy, not all of the settlers had elected to accept them, some having preferred to purchase only the bare land. On Project XIV the settlers had a choice and exercised it. On other projects the initial purchase price did not include these extras, but subsequent advances were made to enable the settler to construct buildings, clear land, etc. Consequently, neither the percentage of initial payment to purchase prices nor to initial farm capital is fully significant of the extent to which all of the capital requirements of the first few years were covered by the initial payment.

In spite of their limitations the percentages in Table 16 bring out some significant contrasts in the policies followed by the several projects. At one extreme is Project XIII, where settlers were placed on the land when on an average they had paid down only about one-twentieth of the purchase price and farm capital. This is the firm described above using the "option lease." This firm had taken on an average only $74 in initial payments and had placed settlers on the land whose average initial net worth was only four times this amount. At the opposite extreme are Projects VI and XII which had been selling land to farmers with considerable capital. The large number of settlers paying in full or paying enough to secure a mortgage also increases these proportions for several of the companies. The table shows this effect by comparing the ratios for purchases on contracts and options with the ratios for all conveyances. The area of land purchased also is a factor.

A high percentage of initial payment to purchase price usually means taking a larger than average proportion of the settler's initial net worth. On Project VI, however, the settler still had over $1,600 left to be employed for purposes of development, as compared with only about $218 for Project XIII, on which only 25.4 per cent of the settler's net worth was taken for the initial payment. Project XII also appears to have been financed on a conservative basis, if judgment is based solely upon the relation of initial payment to value of purchase and initial farm capital; but the fact is that a large part of these values constituted an extravagant expenditure for buildings. Furthermore, three-fourths of the settler's entire net worth was taken as initial payment.

The financial status of the settlers surveyed is also indicated from another point of view by Table 17, which shows the relation of indebtedness to total farm capital at the time of survey. The average indebtedness is shown to be only 40 per cent of the average farm capital, with a range from about 24 per cent to a little over 55 per cent, according to period of settlement. As will appear later, the decrease in the percentage in accordance with length of time since settlement was wholly due to increase in land values after purchase, partly because of land clearing and partly because of an increase in the general level of land valuation that took place during the period just preceding these surveys. The average amount of debt actually increased with length of period of settlement, the apparent decrease shown in Table 17 being due to the fact that the initial indebtedness contracted by the settlers longest on their projects was smaller than that of settlers who had purchased more recently.

TABLE 17.—*Average farm capital, average farm debt, and relation of debt to capital for 451 Wisconsin settlers, classified by years since settlement*

Years since settlement	Number of settlers	Average farm capital	Average debt	Relation of debt to capital
		Dollars	*Dollars*	*Per cent*
Less than 1 year	144	3,317	1,827	55.1
1 year and under 2 years	117	3,634	1,661	45.7
2 years and under 3 years	54	4,016	1,686	42.0
3 years and under 4 years	34	4,545	1,539	33.9
4 years and under 9 years	57	5,974	1,428	23.9
9 years and over	45	5,172	1,482	28.6
All years	451	4,097	1,661	40.5

The outstanding fact in this whole matter of terms of purchase is that few of the high-grade land companies operating in the cut-over region of the Lakes States were really expecting to get any money payments on principal for at least the first 3 years. Several were not trying to get such payments for 5, 8, or 10 years. In the latter cases this was made possible by exchanging contracts made for 3 or 5 years and requiring no payments on principal for 5-year mortgages at the end of the contract period. A 30-year amortization mortgage would require only a very small payment on the principal.

The policy of not expecting substantial payments in the first few years of settlement is really made necessary by the fact that the ordinary settler needs all available funds for developing his place and supporting his family. Furthermore, for a number of years only a small part of the cleared portion of the total acreage purchased is likely to be capable of yielding any considerable income.

TABLE 18.—*Size of initial tract purchased by 510 settlers in Minnesota and Wisconsin*

Size of initial tract	Number of farms	Size of initial tract	Number of farms
10 acres and under 25	5	85 acres and under 125	29
25 acres and under 45	188	125 acres and under 165	15
45 acres and under 65	44	165 acres and under 205	7
65 acres and under 85	214	205 acres and over	8

SIZE OF PURCHASE

Table 18 shows the sizes of the plats initially purchased by 510 settlers in Wisconsin and Minnesota. They fall largely in two main groups, the 40-acre group and the 80-acre group, the latter being somewhat the more numerous. Those who were farmers prior to becoming settlers, probably accustomed to the comparatively large farms of the corn, wheat, and dairy regions of the Middle West, purchased farms averaging 89.5 acres in size, and those who came from other occupations purchased farms averaging only 65.4 acres. The average for all occupations was 72.4 acres.

Similarly, the foreign-born settlers purchased farms of smaller average size (67.3 acres) than the native-born (77.4 acres), although having larger beginning net worth. Apparently, European tradition as to size of farms was the reason. In general, if the soil is light, if the land clears easily, or if considerable noncultivable land is included in the plats, the area of the farm should be larger than would otherwise be necessary.

Table 19 shows a wide range in sizes of plats sold by the different companies. Project I, selling wholly to farmers, averaged 118 acres; Project VI, selling mostly to farmers, averaged 146 acres; Project XV, selling wholly to foreign born, averaged 57 acres.

TABLE 19.—*Size of farms sold, by projects*

Project	Average size of farms	Project	Average size of farms	Project	Average size of farms
	Acres		*Acres*		*Acres*
I	117.8	VI	146.0	XI	77.1
II	108.1	VII	60.8	XII	139.8
III	80.6	VIII	63.1	XIII	66.9
IV	64.1	IX	59.8	XIV	63.7
V	49.3	X	72.1	XV	50.0

Differences were not all due to the circumstances mentioned. Different colonizing companies had somewhat different policies. They were influenced by two opposite sets of consideration—one led them to divide the available area into a large number of small farms and the other to divide it into a smaller number of larger farms.

One of the considerations against too small a unit is the comparatively larger expense of selling a given amount of land. To divide 10,000 acres into 500 tracts of 20 acres makes the expense of selling the entire area much greater than to divide it into 125 tracts of 80 acres, for it costs about as much to sell a 20-acre plat as to sell an 80-acre plat. Again, if the company is helping to finance the development of the tract by advancing funds for constructing buildings, clearing land, purchasing stock, equipment, seed, etc., it will have to invest a very much larger amount of capital if it divides its tract into 500 farms than if it divides it into 125 farms. Furthermore, the greater the number of settlers on the tract, the greater the expenses for supervision, accounting, collections, and general services.

On the other hand, the interest which the company has in a rapid turnover of its capital exerts an influence against the sale of large tracts on credit. The ability of the company to get its capital out of a project is partly dependent on the ability of the settlers to meet their payments, which in turn depends on the amount of land they can get into cultivation. If the company is using mortgages as collateral for borrowing funds, it depends upon having each settler develop his holding sufficiently to support a mortgage. For a settler with a given amount of capital the larger acreage means a larger proportion of idle land and a heavier financial burden, thus decreasing the rate at which he can retire his indebtedness to the company.

Another important consideration is that if larger rather than smaller tracts are sold to settlers a smaller proportion of the area sold will be cleared and developed in a given period after settlement. Consequently, the country will make a poorer impression on new prospects, and the whole level of land values in the area will rise more slowly.

An important consideration is the available capital of the settler at time of purchase. Within certain limits, the more capital the settler has available, the larger the tract the firm will be justified in selling him. But if a colonization company is interested in the development as well as in the sale of its holdings, this principle is applicable only within limits. It is true, the more capital the buyer has the more safely he can undertake the purchase of a larger tract from the standpoint of fulfilling the terms of purchase, but the payment of his land debt and the repayment of the capital advanced by the company must still depend upon the rate of development of his holding.

If, instead of buying more land and making larger initial payments, the settler with more capital would use it to support his family so that he would not have to work out so much of the time, or to buy dynamite and other land-clearing aids, he would undoubtedly be able to pay off his debts more rapidly. But there is a limit even to this conclusion for it is likely that the wages a settler can earn working out are worth more to him part of the year than land clearing.

Land clearing is most economically done as a spare-time occupation. Moreover, it is not likely that the ordinary settler will be able to spare the money to hire help at land clearing, other than horse and machine work, and even if he had the money it is doubtful whether it is as economical to clear land in this way as to do it as a gradual and spare-time employment.

There is another very important angle to the question: It is likely that the economic unit for farming in the Lakes States is in most cases larger than 40 acres. Farming this far north will largely be a hay-and-pasture type, a relatively extensive type. This will be offset partly by the growing of small quantities of potatoes, sugar beets, and other intensive root crops. One company which sold mostly 40-acre tracts 10 to 15 years ago now regrets its policy. The settlers have most of the land in crops and improved pasture. Their families are now large enough to help, but there is not sufficient work for them. They are going to the city to look for jobs. It would have increased the company's burden to have sold these settlers eighties instead of forties, but it would have been better for the settlers in the long run. Some of the intensive colonization companies are a little shortsighted in this matter. They are thinking too much of their own problem of capital burden, and not enough of the future welfare of their settlers.

On the other hand, although the settler with the larger holding will profit from the increase in the value of the land that is sure to come in any rapidly developing area and the cost of holding land may be offset by the advance in values, the problem of land settlement becomes much more complicated in a time of falling land values because of the necessarily large reserves of unproductive land in a cut-over area.

Many of the settlers are willing to take a chance on buying an additional 40 acres later on. The turnover is sure to be large even in the best-managed colonies. But although they are fairly sure to be able to get the land later, the chance will be small of getting exactly the 40 acres wanted. If the company could hold additional 40's in reserve for the settlers, the problem would be solved for them but the burden on the company would be considerable. Some of the companies are holding meadowland in reserve for this purpose, in some cases expecting to drain it before putting it on the market.

There is thus a satisfactory compromise between selling the settler too much land and selling him too little, which can be determined in various ways according to the system of land settlement followed. Companies that follow the policy of investing a large amount of capital in construction of buildings, preliminary clearing, provision of livestock and equipment, will probably lean toward the sale of small farm units; whereas companies that leave the settler free to finance his enterprise may be more favorable toward selling a somewhat larger unit. None of the 15 firms studied really followed the policy of selling settlers as much land as they could safely afford to sell in view of the amount of initial payment the settlers were capable of contributing, with no regard to whether anything would be left for development of the purchases. There were two or three, however, which leaned in that direction. The

tendency to oversell was especially likely to occur in the case of those firms which made a practice of listing their land for sale with local agents in prospect territory on a commission basis. Unless the colonization company exercises firm control over such agents, they are likely to oversell the prospects.

Trading for other property is a practice that usually results in selling the settler more land than he ought to have. If a company trades in 60 acres of land at $1,800 for a $2,000 house, the company has not really made any sale as yet. The $2,000 house must still be sold. If, however, 160 acres of the same value per acre is exchanged for the $2,000 house, then the company has really sold nearly 100 acres. Of the 15 companies studied, only one, Project VI, had followed this policy, which it abandoned in 1918. Nevertheless, it was a factor partly responsible for the average of 146 acres for the farms on this project.

CONDITIONS AFFECTING CREDIT POLICIES

Credit policy is one of the fundamental phases of the problem of land settlement. The discussion thus far has made it clear that a credit policy can not be adopted without reference to the other circumstances and policies which characterize the plan of land settlement. Thus the credit policy must be largely determined by the class of settlers selected. On the other hand, the more liberal the system of credit, particularly as regards the percentage required as initial payment, the more likely that the class of settlers attracted will be those of small means with the personal qualities usually associated with and partly responsible for small means.

The discussion of land settlement methods and policies has also made clear the fact that it is impracticable and undesirable to apply a cut-and-dried credit plan rigidly to all settlers. Prospective settlers differ greatly not only in ability but in financial condition. They vary in prospective income. Some may have prospective income from other property. Others may have some kind of steady employment which will yield a source of income, or they may have children who are earning something which can be contributed toward the making of subsequent payments on the development of the property purchased.

In considering the problem of credit under the circumstances of land settlement in the Lakes States, it is therefore desirable to start with the basic conditions: (1) Farm captial requirements; (2) the amount of it supplied out of the beginning net worth of the settlers; (3) prospective receipts from the farm and from outside sources, including increases in farm inventory.

TABLE 20.—*Conditions determining credit policy for 15 colonies in Wisconsin and Minnesota*

Project number	Average initial net worth per settler	Percentage initial net worth was of total capital and cash	Number of acres in first purchase	Average paid for land alone	Average value at time of settlement of buildings, equipment, and livestock	Average cash on hand after purchase	Total farm capital at time of settlement, including cash
1	2	3	4	5	6	7	8
I	$1,828	42.5	118	$3,183	$634	$485	$4,302
II	1,223	49.6	108	1,279	570	618	2,467
III	1,821	63.0	81	1,856	268	766	2,890
IV	1,106	61.1	64	1,056	65	688	1,809
V	832	39.4	49	1,435	272	406	2,113
VI	3,259	71.0	146	3,059	505	1,025	4,589
VII	1,377	61.0	61	1,167	469	621	2,257
VIII	1,086	56.7	63	1,064	166	684	1,914
IX	1,086	40.3	60	1,571	570	551	2,692
X	1,111	33.2	72	2,088	727	527	3,342
XI	974	38.1	77	1,737	303	518	2,558
XII	2,086	37.1	140	3,331	1,709	590	5,630
XIII	292	17.8	67	1,126	412	101	1,639
XIV	1,338	52.4	64	1,455	326	771	2,552
XV	1,034	68.4	50	866	127	518	1,511

FARM CAPITAL REQUIREMENTS

Table 20 shows that the average value of farm capital, excluding cash on hand at the start, for the various projects ranged from $993 to $5,040 (columns 5 and 6). Of 583 settlers, 60 per cent employed less than $2,000. Over one-third employed less than $1,400. Only 10 per cent had farm capital above $3,500 in value. The average value of farm capital exclusive of cash on hand for all the settlers was $2,040. These settlers had, in addition, an average of $540 of cash on hand after settlement, the averages for the various projects ranging from $101 to $1,025. These figures should not be taken as indicating what the settlers should have, but rather what they did have.

Table 21 shows that the value of farm capital at time of the survey varied from $3,317 for the settlers in their first year to nearly $6,000 for the older settlers. The lower average for the very oldest group was due to the fact that it consisted largely of one group of settlers who purchased 40's and whose investment in buildings and equipment was nearly stationary after four or five years.

Obviously, a considerable part of the difference in amount of farm capital for the older groups as compared with those who have recently acquired their holdings represents the larger increase of land values over the longer period rather than a difference in the amount of capital put into the business; that is, the part of this increase in farm capital which represents increase in land values does not need to be considered in exactly the same sense as the remainder. That part of the increase of land value which was due to land clearing represents mostly labor, which, however, had to be supported while at work at home.

TABLE 21.—*Average farm capital at time of survey, classified by years since settlement, Wisconsin projects*

Years since settlement	Number of settlers	Average farm capital at time of survey	Increase in land value per farm	Average farm capital, less increase in land value
Under 1 year	144	$3,317	$574	$2,743
1 and under 2 years	117	3,634	911	2,723
2 and under 3 years	54	4,016	1,212	2,804
3 and under 4 years	34	4,545	1,451	3,094
4 and under 9 years	57	5,974	1,852	4,122
9 and under 14 years	45	5,172	1,971	3,201
All years	451	4,097	1,105	2,992

BEGINNING NET WORTH

The settlers' beginning net worth in these 15 projects averaged $1,237, or 48 per cent of the total farm capital, including cash on hand at time of settlement. This means that the land companies had to provide 52 per cent of the initial capital. The percentages of initial net worth to total farm capital, including cash for the land settlement companies, range from 17.8 per cent for Project XIII to 71 per cent for Project VI. (Table 20.) It should be noted that these extremes are largely the outgrowth of the policies of the land companies themselves in the selection of settlers and adoption of a credit policy. For instance, Project XIII is the one which went to an extreme in financing settlers with a minimum of capital to invest. Project VI pursued a policy at the other extreme, seeking only settlers with considerable capital and ability to finance the development of their farms. The problem of obtaining requisite capital was necessarily very difficult for, say, the 36.7 per cent of the settlers in this project who started with an initial net worth of less than $600, and probably also for the additional 28 per cent who had from $600 to $1,200.

RECEIPTS

It would normally be expected that the capital requirements of a farming enterprise after the first year would be met, to a considerable extent, out of current receipts. Table 22 makes it clear that not much can be expected from this source for a new farm in the cut-over region. The average receipts for the settlers who had completed only one full year were only $556, of which amount 69 per cent was from outside labor and 10 per cent from timber products. The only reason that more was not earned working out was that some of the settlers still had a part of their original cash on hand. The average for the settlers who had just completed 2, 3, or 4 years is $674, of which 50 per cent was outside labor and 11 per cent timber products. The slowly increasing crop and livestock receipts had reduced the proportion from outside work by a little, as compared with the settlers who had been on their farms less than two years.

TABLE 22.—*Average receipts per settler for the last year (Wisconsin and Minnesota areas combined)*

Years since settlement	Number of settlers	Crops	Live-stock sales	Live-stock products	Timber	Outside labor	Average of total receipts	Per cent of all receipts which were obtained from outside labor and sale of timber
Less than 1 year [1]	123	$5	$20	$29	$10	$144	$208	74.0
1 and under 2 years	125	33	29	56	54	384	556	78.8
2 and under 3 years	61	62	49	102	92	351	656	67.5
3 and under 4 years	33	146	68	112	85	376	787	58.6
4 and under 5 years	25	106	50	129	30	250	565	49.6
5 and under 6 years	6	260	119	421	0	435	1,235	35.2
6 and under 7 years	14	315	236	408	0	237	1,196	19.8
7 and under 8 years	11	94	105	316	5	102	622	17.2
8 and under 9 years	7	91	66	306	0	29	492	5.8
9 and under 10 years	22	154	64	437	2	102	759	13.7
10 and under 11 years	10	168	122	358	2	76	726	10.7
11 and under 12 years	10	174	115	444	0	143	876	16.3
12 and under 13 years	2	72	195	900	0	35	1,202	2.9
13 and under 14 years	3	340	63	162	0	133	698	19.1
14 and under 15 years	1	1,025	300	300	0	0	1,625	0
19 years	1	0	0	418	0	110	528	20.8
All years	454	72	51	128	38	260	549	54.3

[1] These data for less than 1 year are significant only as indicating the sources of receipts. The data do not include 56 settlers who had been on their holdings so short a time that they had no receipts.

Average receipts for the 42 settlers between 9 and 12 years was $779, an increase of less than $100, as compared with settlers who had been on their projects only from 2 to 4 years. However, less than 15 per cent of the receipts of the former group was from labor off the farm and from timber products. Thus, with the passage of time settlers appear to increase their income very little; the principal change is in reaching the point where they can get along without working out very much.

Out of the total receipts, averaging for all the settlers $549, must have come that part of the family living not furnished in kind by the farm, whatever farm expenses and additional farm capital may be required, and such cash payments as the settler was able to make toward interest and principal of indebtedness. Obviously, there could have been very little left for adding to the farm capital. Whatever additions to farm capital occurred must have come from other sources. Table 23 shows that the settlers borrowed money for part of it, for on all projects except three the indebtedness had increased since settlement. The average increase was $261, and the range, from a decrease of $120 to an increase of $1,300. It is important to recognize that the increases were over and above the indebtedness contracted in the initial purchase of the land, and represented supplemental borrowing. Some of the projects with the longest development periods show the largest increases in indebtedness.

TABLE 23.—*Average change in indebtedness since settlement*

Number of project	Average years since settlement	Average change in debt	Number of project	Average years since settlement	Average change in debt
I	1.40	$+32.48	X	1.23	$ +47.31
II	6.40	−120.27	X	.61	+123.70
III	2.70	+90.16	XI	.33	+602.04
IV	9.45	+1,300.00	XII	1.05	+9.09
V	2.02	+180.05	XIII	2.11	+863.40
VI	3.81	+272.15	XIV	1.97	−8.31
VII	5.10	−40.41	XV	7.20	+793.43
VIII	2.64	+198.06			

The other source of increase in farm capital was increase in inventory of land, buildings, equipment, livestock, etc. The average net gain of all settlers was $516 per year. Of this amount, $368 per year represents increase in valuation of the land in farms. This leaves only $150 per year for other increases in inventory. The increase in land valuation was supported in part by the clearing done. The record for these settlers is as follows: Average number of acres cleared per year, 2.55; average number of acres brushed per year, 2.22; average number of acres of marsh cleared, 0.67. The increase in land valuation was at the rate of $144 for every acre completely cleared, or if the three kinds of clearing are combined in the following assumed ratio: Clearing, 1.00; brushing, 0.40; marsh clearing 0.30; the increase in land valuation was at the rate of $100 for every acre of combined clearing. Of course, this increase is attributable not only to clearing but also to the general increase in the level of land values. If the clearing is assumed to be worth $50 per acre, it would leave an average of $7.70 per acre of all land in the purchase as due to the general rise in the level of prices of wild land. If we assumed the clearing to be worth $60 per acre, it would leave $6.25 per acre as due to the general rise in the level of prices of wild land.

The suggestion that a part of the increase in valuation shown represented a rise in the general value level for raw land is confirmed by other data. The average of 284 sales in Wisconsin in 1918 to 1920, inclusive, was a little over $26 per acre. An average of 35 sales from 1908 to 1910, inclusive, was a little over $16 per acre. This increase in the price level had been especially rapid in the two years preceding the survey. The majority of the companies had made a general increase in their price lists of unsold land, usually from $5 to $10 an acre in 1919 and 1920, and these increases had been reflected in the valuation of the settlers' lands as reported by them.

There was also an increase caused by the general progress of settlement in the community resulting in the improvement of community facilities such as roads, marketing arrangements, and social institutions.

At the time of the surveys these increases in the valuation of land appeared to constitute not only increases in farm capital, but increases in the security upon which loans might be based for procuring other forms of capital.

The general practice with reference to capital and credit on new farms in the cut-over region, as revealed by the survey, may be summarized as follows: The settlers ordinarily bring enough cash with them to support them most of the first year. For the next few years they earn most of their living at outside work. Gradually, however, the crop and livestock receipts increase to the point where it is no longer necessary to work out. All this time the settler is slowly increasing the net value of his inventory other than the increase which is due merely to the rise in the level of land valuation. Much of this rise represents labor at land clearing and the natural increase of livestock. But a considerable part of it is borrowed by the settler, so that his debt is constantly increasing, at least for five to eight years. The basis of security for his loans is the increase in the valuation of his land due in turn largely to his land clearing.

These facts make it clear why land-settlement enterprises in the Lakes States had been compelled to rely so largely on the increase in the valuation of land after settlement as a basis for exchanging mortgages against the settlers' indebtedness to the company. This had been the principal means of making the company's capital revolve. It must be remembered, however, that to whatever extent the companies had succeeded in getting their capital out by writing mortgages against these increased valuations and selling them to others, they had merely shifted the "holding of the bag." The indebtedness still remained. If the values should shrink, as they probably have since the date of the field surveys, the new creditors would find the margin of security shrinking, with the additional legal disadvantage that they are holders of mortgages instead of land contracts.

Increase in valuation due to clearing and to the settlement of the community is a normal increase and may be counted upon under ordinary conditions in formulating a financial plan of land settlement, but an increase due to the general rise in the value of raw land is a temporary favorable circumstance that may cease to exist and can not safely be counted on as the basis of a plan of land settlement. Indeed, a falling level of prices for land may tend to affect somewhat the normal increase in valuation justified by clearing and improvement.

CREDIT POLICIES

In actual credit policies there are two major alternatives: (1) To sell land only to prospects needing no credit that they can not obtain for themselves from local banks or elsewhere: (2) to sell to prospects of inadequate means and provide them with the necessary capital.

The difficulty with the first alternative is in its application. Very few companies can be trusted to see to it that the settler has adequate means. As a matter of fact, it is a hard policy to apply. There are many prospects who, with inadequate means and without financial aid, will succeed as settlers. It is still possible to start with only a few dollars and win a farm in the cut-over region: but it will take a long time, and all of the capital needed to make a beginning, build the house and start land clearing will have to be earned elsewhere. Once the settler has moved onto the holding with his family, he will have to work out most of the year to support them.

There are enough settlers in every area who have done this so that, if it wishes to be blind to the preponderance of facts, a land company can advance the philosophy that "pluck is the important thing," that "money is not needed—it usually does more harm than good." Or at least enough cases are successful to cause a well-meaning land company to feel at times that it is denying the prospect a chance if it refuses to sell to him under such conditions.

At least 6 of the 15 companies are supposedly operating on the basis of selling only to settlers of adequate means. Probably 2 of the 6 are properly restricting their sales. Another is selling freely, but discouraging its purchasers from moving onto their holdings until they have adequate means. As a result, a large proportion of the land they have sold has never been developed, and may have been resold two or three times.

There are several cases on record where local banks came to the rescue and saved from failure groups of settlers with inadequate means who were sold land by unprincipled companies or agents.

There are two plans for providing credit for settlers with inadequate means. One is to lend them money and supervise them in the spending of it, the other to spend it for them.

LENDING AND SUPERVISING

Of the 15 companies, only 1 really followed the first plan consistently. Another company was combining it about equally with the second plan. Four other companies were following it to some extent. On Project XV the advances to the settlers at the end of five years amounted to an average of $900 on a 40-acre tract. The average purchase price of 40 acres was only $600. The $900 was not furnished all at one time, but at any time during the five years that the settler needed it. In the end, the loans were converted into mortgages and the mortgages were sold to a local bank. Such a policy requires very close supervision of the settlers.

Project XIII, a company which was following both policies, had made loans to its settlers of an average of over $700 by the end of the third year, in addition to the improvements sold with the land.

FURNISHING IMPROVEMENTS WITH THE LAND.

The policy of furnishing improvements with the land and adding the price of them to the amount of the contract is being followed by 5 of the 15 companies as a major program, and by 4 in a minor way. The list of things furnished with the land by the various companies is long, and each item has its special problems. Buildings, livestock, and equipment are the most important. Table 16 gives the average value per farm of these items furnished by the various companies.

Five of the 15 companies were building houses for settlers, and 3 others had experimented with the plan somewhat. With all of the 5, the settler was free to choose whether he wanted a house built for him, and likewise with the barn. On some of these projects, nearly all the settlers chose to have houses built for them; on other projects, the proportion was much less. A large proportion of settlers on all projects preferred not to have barns built by the company. On most of the projects the buildings were all built according to one

plan or closely similar plans. On two projects, the settler had considerable choice.

The proportion of settlers who wanted buildings erected appears to be dependent, to a large extent, upon the type of advertising done and of prospects secured. When the option to have a house built or not have one built is played up in the advertisements and sales talk, the proportion deciding against it is large. As a result, most of the companies building houses were stressing the settlers' freedom of choice in the matter. The rising cost of buildings was undoubtedly partly responsible for this policy. The prices at which the houses were advertised appeared prohibitive. The settler could not see why such houses should cost so much. Although every company which was building houses claimed to be furnishing them at cost, the general impression among the settlers in the community and among competing land companies was that a margin of profit was always added. Some heavy costs are connected with this kind of building, for materials must be hauled long distances and carpenters must be transported to and from town.

The usual type of house constructed by the companies on the projects surveyed was one-story and had two or three small rooms. A few had low sleeping rooms above. They were usually sided only with paper and strips or with siding in addition on the front. The floors were generally hardwood. Such houses were selling at prices ranging from $300 to $750 depending upon size and finish. One company had erected ready-cut houses and barns at a cost of about $2,000, but most of them were unoccupied.

Arguments advanced in favor of building houses for settlers are: (1) The settler has a place for his family to move into when they arrive. This makes them more contented. Discontent of the family is a large factor in settlers' failures. (2) The settler does not have to use valuable time in putting up a house when he should be clearing land and getting in his first small crop. When settlers move in, in April or May, it is very important that they get to clearing land for the first crop at once. (3) The company can economize for the settler by buying lumber in quantities and organizing construction on an efficient basis. Especially is this true if lumber can be sawed on the company's holdings near by.

Arguments advanced against building are: (1) The settler can erect these buildings much more economically than he can hire it done, especially if the company will furnish him lumber at quantity prices. He can do most of the work himself, and at odd times when his time is not valuable. Cost of transporting workmen is saved. (2) He can usually find a place to rent for a month or two for his family, or leave them behind for awhile; or he can come up the fall before, erect his house and even clear some land. (3) Houses constructed in advance by land companies are undesirable and are not likely to please the families of the settlers. At best, such houses can not ordinarily be used to advantage as part of the permanent structure to be erected later. A settler with even fair means is not ordinarily attracted by a ready-made two-room one-story house.

The house-building program appeals to prospects who have from $500 to $1,000. Such settlers can not ordinarily make a first pay-

ment down on a piece of land, erect a house, and have enough left to last until winter. The companies that build houses usually require a payment down about equal to the price of the house and other things advanced. This means that the settlers make no real payment on the land. The house-building plan is therefore a credit plan to enable settlers with small means to get started when otherwise they could not. Undoubtedly, it has enabled large numbers of deserving families to attain a foothold on the land.

In effecting the settlement of people of this class, the real issue is not between building houses and not building houses, but between building houses and advancing loans for building houses or lumber. Three companies in 1920 were advancing building material and letting the settler build his house. In fact, there is less call for houses when saw-lumber can be cut on the land or when houses can be rented for a while. Many settlers, especially in Minnesota, still erect temporary log houses.

Only one company of any magnitude was clearing land in advance of settlement. This company was brushing 2 or 3 acres around the houses they were erecting to protect the premises from fire and to make room for the first year's garden. Two or three other companies had done a little brushing. Superficially, the proposal to clear 5 to 10 acres for each settler seems sound. It means that he can have some income from his place, from the start. It would also seem desirable to brush another 5 or 10 acres and seed it to clover to get a pasture and meadow started. However, all except one of the companies that had tried this plan had abandoned it. One company said it almost went bankrupt as a result of its experiment.

The difficulty, they claimed, is that it costs the company so much more to hire land cleared than it does the settler working for himself that the farms can not be sold for enough more to reimburse the company. It is probably true that no way of clearing land has yet been found which is as economical as having the settler do it himself at odd times along with his other work, using stump pullers, dynamite, and all the other modern labor-saving devices in the proper manner. It would seem, however, that having a few acres cleared to start with is so important as to outweigh the extra cost of hiring it done in advance. It is likely that the matter has not been given a thorough trial by a company capable of carrying the experiment through to a conclusion. Undoubtedly, such an experiment would require considerable extra capital.

An alternative to clearing land in advance for a settler who has only limited means, is to lend him money to live on while he is doing it, and money for dynamite and stump pullers. This means that he will be able to raise only garden crops the first year, and these mostly among the stumps if the timber has been thick. He will have to depend on wild hay for winter feed for his one cow, which is all he can usually afford under such circumstances unless the region happens to be one with abundant natural grass. Even if several acres of land were cleared for him in advance, he would still have to work out or work on his own timber a large part of the time for the first few years. The land clearing will merely have the effect of making his farm support him a year or two sooner.

Several of the companies sell one milk cow, or two if the farm is large, with the land. This is always optional with the settler, and many settlers buy their own cows or bring cows with them. One advantage of having the company furnish the cow is that it can probably buy to better advantage and select better cows than will the type of settler attracted by such settlement plans. Generally speaking, the settlers in a new country do not have good cows. On the other hand, they ordinarily can not afford to have first-quality cows at the start, for frequently they are not good dairymen, and usually do not have first-quality feed for the cows. Another advantage in having the company furnish the cow is that the settler in many cases has not the means with which to buy, and the cattle-buying program is a method of supplying the settler with credit.

In some cases the provisions with respect to furnishing the settler with cattle are included in the contract; in other cases, inserted in the contract later at the time the cattle are provided; in still other cases, the arrangement is based on a chattel mortgage or by a promissory note, in each case generally separate from the contract. When covered by a chattel mortgage, the cattle must be paid for within a short period, two years in Wisconsin, or some new form of security provided to cover them. If cattle must be paid for in two years, this constitutes a departure from the three to ten-year exemption from payments that is the basic idea of most of the new colonization policies.

Difficulties in buying cattle for settlers are: (1) Many of the cattle are sure to prove unsatisfactory and the settler will complain about them, if he knows what to expect from a reasonably good cow. (2) There will be faults in the animal which will appear only at time of freshening. (3) The settler's feed is not likely to be of the best in the first two or three years, and even good cattle will not do well on poor feed. The ordinary feed of cattle in the cut-over country during the winter is hay and a very little grain. Much of the hay is wild hay and marsh grass. At the price of concentrates in the settlement areas, a settler can not afford to buy much concentrated feed. Prices of high-grade cows are established by what experienced and efficient farmers can make them earn by giving them high-quality feeds. A poor dairyman feeding poor feeds will run behind if he attempts to buy high-grade cattle at prices established in this way. (4) Settlers sometimes neglect their cattle, occasionally even losing them in the woods. (5) If any of the cattle do not turn out well, the company has to square itself with the settler by replacing them. The losses from this source have to be distributed over the other cattle in the form of an addition to their price. Because one company did not make sufficient allowance for this, it lost several thousand dollars from this cause in one year's operations.

On two settlement projects cattle were furnished the settlers by separate cattle loan organizations, hence were not included in the settlers' contracts. The colonization companies owned a large share of the stock of these organizations. Local banks furnished the necessary capital. The managers and directors of the cattle loan organizations supervised the loans and in most cases guaranteed them. Undoubtedly this arrangement is desirable, particularly because it reduces the number of things which the land company seems to be

doing for the settlers and thus helps to remove the appearance of too much paternalism.

Provision for furnishing the settlers with cattle is needed whenever the settlers are not sufficiently supplied. This may occur during the first year or two of settlement, when a settler should ordinarily have one or two cows. It may occur again at a later period after the settlers have 10 or 15 acres cleared but are without means to buy the additional cattle needed. Frequently, however, settlers who come from older farming districts bring too many cattle with them the first season. They usually manage to get along with them until winter comes, when the feed falls short and the buying of feed bankrupts the settler.

Only a few companies were helping their settlers to get horses, and then only after a few years. Usually enough settlers bring horses with them, against the advice of the land company, so that the settler without horses can hire the horse labor he needs. Some companies rent horses to their settlers. Projects X and XIII were following this policy. The general opinion is that settlers should not have horses for the first year or two; it is much cheaper for them to hire. Generally for several years settlers are not able to grow enough feed to keep horses during the winter. After a settler has cleared 5 or 10 acres, he can afford to buy one horse to do his light work and take him to town and back for his trading. He can double up with his neighbors for work requiring a team. After 15 or 20 acres are cleared, the settler may be ready for a second horse. The settler always needs cows before he needs horses.

Settlers do not accept the advice of the land companies in the matter of buying horses, because they do not like the idea of carrying their provisions on their backs from the nearest trading post and of doing things by hand which can be done more easily with a horse.

An exception to the foregoing plan, both as to cattle and horses, should be made where there is an abundance of natural feed and comparatively easy clearing, or if there is plenty of teamwork to do in the winter.

A few companies also furnish, if desired, a pig, a few chickens, and a small supply of feed. Usually these extras are priced separately from the land, so that the settler knows exactly how much he is paying for each.

COMMUNITY IMPROVEMENTS

Costs of community improvements are as surely included in the contract price as are buildings and livestock, but they are not separately designated in the contract, so that the buyer does not know what he is paying for them. They are of two types: Those that are of vital concern to the settler, such as roads, schoolhouses, and creameries: and those that are of less consequence and cost little, such as community-center planning and parks.

LAYOUT OF TRACT

Nearly all tracts have some land which is either too rough, too wet, too stony, or too sandy for crops. If the layout is carefully planned, most of this, unless it occurs in large blocks, can be included in settlers' plats. This will make the farms vary considerably in

size if all settlers are given approximately the same amount of tillable land. There is probably a tendency to lay off land settlement projects too much in 40's, 80's, and other even units. Ordinarily, it is impossible to get the right proportion of pasture, meadow, and crop land, and have the units so uniform.

If noncultivable land lies in a large block, some other way must be found for handling it. One company was expecting in a few years to sell a large marsh in 10-acre and 20-acre plats to the settlers now in the colony. Another was planning for joint use of pasture and meadow land on a rental basis. Another was laying out its rough land in sheep farms. The layout of a tract is closely related to road planning. If a road is established in the wrong place, it is frequently impossible to incorporate some tracts in farms to advantage. The land between roads and streams and around lakes is especially likely to suffer.

COMMUNITY PLANNING

The advantages of community planning constitute one of the chief reasons for having a compact tract to colonize. Without a compact tract, it is not possible to locate community centers, lay out roads, reserve land for public use, and to plan the use of the land so there will be a minimum of waste.

A few companies are making the planning of the tract a rather elaborate business, first giving the tract a hasty but detailed survey and then mapping out the tract according to soil, topography, and mode of utilization. On this basis the layout is planned. Finally, in some cases, a colored map is prepared to help the prospect in selecting his land. The map gives them a chance to see that the best land has been divided between several plats. Other companies oppose this practice on the ground that it hinders rather than helps the sale, and that prospects are never satisfied with the plats as laid out.

ROAD BUILDING

Road building is more important than all the other community improvements combined. Several of the colonization companies were building roads to all their lands before selling them; in other cases they were cooperating with the local townships and getting them to build the roads. Where the colonization company owns a large share of the taxable property in the township, it makes little difference which way the matter is handled. Another plan in use was for the land company to cut out the road and remove the stumps, and the township to do the grading. The settlers are able to use the road before it is graded, and when enough of them move in the township is in a position to do the grading. Some of the companies considered it highly important to make their land accessible by roads before they offered it for sale. They believed that the land sold enough more easily and for enough higher price to warrant the expense of road building.

Several land companies were paying no attention to roads, leaving the matter almost entirely in the hands of their settlers. As a result, in some cases, the settlers could not be reached except over

old logging trails or over logging railroads. It would be hard to imagine worse roads than some of these.

Among the 583 settlers surveyed 65 complained about the roads. Most of these settlers were on Projects I, VI, VIII, XI, and XIII. Obviously, some of the companies or their salesmen had made promises which had not been fulfilled. Where the roads are poor the mail service is poor, and 14 settlers complained about inadequate mail service.

Where land is being colonized over widely scattered areas, fairly satisfactory roads may already be built most of the way. Occasionally land companies under such circumstances give the township a few hundred dollars to extend the road the rest of the distance; but instances were found of land companies selling scattered tracts that were almost inaccessible.

SCHOOLHOUSES

Land companies frequently have to make special arrangements with the local governments to secure the erection of schoolhouses for their settlers. The companies studied had not always been so prompt in this matter as desirable. Forty-five settlers included in the surveys made complaints on this score.

VILLAGE SITES

Several of the companies were laying out village sites. Where these were laid out around railroad stations already established, or where the company had succeeded in having a railroad station established at the desired point, the company usually had managed to control the location and the carrying out of its plans. Under these circumstances the extra forethought is well worth while, because there is an opportunity to add to the attractiveness of the community at very little cost. If the company can bring about the erection of appropriate store buildings, bank building, community hall, etc., it will add even more to the advantages of the situation.

In several cases where companies had endeavored to lay out village sites away from railway stations, they had not been successful. The settlers had ignored the grants of land for schoolhouses and churches, and had located these buildings to suit their own wishes. Even buildings already erected had been left unoccupied.

There can be no question about the value to settlers of laying out tracts and roads properly, of actual road construction, and of securing good stores. A symmetrical and clearly defined plan for a colony looks well on paper and is likely to make such a deep impression as to obscure the more important considerations. It is vital to recognize that this community planning will not guarantee the success of the settler. Except for such things as road building, it must be said that community planning is not likely to contribute in a large degree to helping the settler pass through the critical period of the first few years of his occupancy of the land. And, unfortunately, such plans frequently omit actual road building. The roads laid out on the plan are likely to be merely trails, and the economic development of the colony for some time will not justify anything more. The churches and schools are likely to be largely on paper, and the

recreational reserves not only undeveloped but little employed by settlers engaged in the stern task of clearing stumps and brush and wresting a bare subsistence from the wilderness. Community planning is largely one of the amenities of colonization and not one of its vital features. It is no substiute for good land, adequate credit arrangements, and selection of suitable settlers.

MARKETS

Land companies frequently find it necessary to look after markets for the settlers' products, especially in the early stages of settlement. The usual policy is to start farmers' cooperative associations as soon as possible. Livestock associations and buying associations can be started comparatively early. Cheese factories can be started with a small number of cows, but it is not advisable to start creameries too soon. Cooperative cream shipping is safer. In all cases, it is a question as to whether to begin operating on a cooperative basis, or to wait until the settlement is better established and the various elements in it are harmonized. For this reason companies were in some cases building creameries and cheese factories and operating them until the farmers were strong enough to buy them out. In other cases, the land companies were either furnishing the major portion of the capital and retaining a controlling interest in the associations or were accepting the settlers' notes as a basis for loans with which to buy shares of stock in the associations. The objective was to put the management in the hands of the settlers, yet keep it under the control of the company.

BANKS

When land is sold to settlers with limited means, somebody must lend them money. Even if they are able to get outside work, they will need some loans. Either the land company must do it directly or it can put its money into a bank and create a separate institution for handling the settlers' loans. This policy had been adopted in some cases. An argument in favor of it is that it removes the appearance of too much paternalism. On the other hand, if a land company is really going to take care of its settlers, loans will have to be made that are beyond the limits of good banking risks.

OPPORTUNITIES FOR OUTSIDE LABOR

A land company has no greater responsibility than that of providing outside labor for its settlers or making sure that it is available in the community. A settler either has to bring cash enough with him to support his family or he must have work. This is true for nearly all settlers for the first two or three years, and for a majority of them for four or five years. Therefore, for a land company to bring in settlers without some provision for their outside employment is exceedingly reprehensible. More companies are to be criticised on this score than on any other. Settlers were found in nearly every project who had spent nearly their last dollar and did not know where to get a job. The field men who called upon the settlers usually found from one-third to a half of the settlers away

from home at work, although the survey was made in July, August, and September. If settlers in their first year, still living on the cash they brought with them, be excluded, the proportion would be considerably higher. If the husband were working near-by, the family had usually remained on the holding. If he were working in the mines or harvest fields or in the city, the family had frequently gone to stay with relatives.

Intensive colonization companies usually have work for a few men at building roads, houses, cutting timber, or clearing land for settlers. But this seldom provides work for all of them, especially after the first year or two when most of this work is done and the new settlers have exhausted their savings. Many settlers' families in the cut-over region of the Lakes States suffered greatly during the stagnant period of 1920, and following, when saw mills were idle.

The most humane policy practiced by any company in this matter was that of Project XIII. The settlers on this project were financed while clearing their own land, the amounts advanced being proportional to the extent of clearing that they accomplished.

Obviously there are some important advantages in favor of settling land as rapidly as the timber is cut in lumbering operations. This means that settlers can be established on one part of the tract while the remainder is being logged. It provides the settlers with work and the lumber department with laborers who are more stable and reliable than the transient laborers usually employed. Logging teams can be used in the summer for road building and land clearing. Lumber can be furnished the settlers at very low cost. Lumber camps furnish a market for some of the settlers' products. Lastly, the land is put into crops and pasture before the second growth makes much headway. Four of the fifteen projects were lumber companies following such a policy. Many other lumber companies in the Lakes States were supposedly following this policy, but their selling campaigns were so mild that only a small part of their available land was sold each year, even during the period of active demand which preceded 1920.

DEVELOPMENT POLICY

As shown by Table 24, there was much difference of opinion among the companies as to the proper development policy. Many of the companies stressed the brushing of land at first, believing that clover, hay, potatoes, rutabagas, and garden crops can be grown between the stumps for the first year or two while the hay and pasture acreage is being expanded. The easiest land to get into use is ordinarily the marshland; hence, such companies urged clearing as much marshland as possible the first season. A few companies, on the other hand, believed it more important to get 5 or 10 acres entirely clear of stumps and stones at the start so that the farm work could be done with machinery and horses. They believed that the settler should not waste his energy doing work by hand that should be done with machinery and horses. They therefore furnished horses and equipment to help him with his clearing and brushing, and then with cultivating his crops and harvesting them. After this start was made, they too favored pushing the brushing faster than the clearing to obtain the much-needed pasture and to give the hard-

wood stumps a chance to decay. But there is no use in having pasture for more cows than winter feed can be provided for. Grass and clover develop rapidly on most of this land after the brush is removed and the sunlight reaches the soil, whereas most brush pasture is of little value.

On many of the plats there are patches which are easier to brush and clear than the rest. The colonization companies all agreed that the settler should attack these first no matter where they are located.

TABLE 24.—*Development policies of 15 companies. Acres cleared or brushed, according to years since settlement*

Project	First year			Second year			Third year			Index all years		
	Cleared	Brushed	Marsh cleared	Cleared	Brushed	Marsh cleared	Cleared	Brushed	Marsh cleared	Cleared	Brushed	Marsh cleared
I	1.39	.96	14.90	1.78	6.53	3.03				78.9	29.1	1,265.6
II				7.82	0	2.17				132.4	99.7	1,762.7
III	.68	2.03	1.20	2.33	4.20	0				64.8	104.2	115.9
IV										112.2	148.5	213.4
V	.41	7.89	0	4.50	3.53	0	1.55	3.68	0	69.4	112.7	0
VI	4.80	7.60	1.60							191.6	210.4	71.7
VII												
VIII	2.60	3.06	0	2.30	4.94	0	2.89	0	0	102.1	66.0	0
IX	1.60	7.43	1.88	2.12	3.38	.85	1.59	31.70	.96	70.6	112.6	174.7
X	2.78	5.86	1.49							116.8	98.3	54.2
XI	1.20	8.06	0							70.9	129.5	57.6
XII	2.13	10.53	2.60							98.2	167.0	133.1
XIII	5.64	2.36	1.18	3.78	2.52	.26	4.81	.44	.41	176.6	55.9	71.2
XIV	1.74	4.54	1.16	.78	3.06	.86	.86	5.82	.25	69.8	92.7	147.2
XV	6.11	1.95	0				3.00	1.39	0	110.1	65.2	0

The clearing record of a project depends more upon the kind of clearing available than upon anything else (Table 24). Some projects (I and II, for example) had a considerable acreage of good marshland relatively easy to clear. Where the land has been burned recently, the record especially for the first few years will be very good, for there are sure to be patches that require very little work. Settlers always clear more land the first season than subsequently, partly because they are able to work at home and partly because they select the easiest land to clear.

Most of the lumber companies had cut off everything worth logging before selling the land, or had reserved what timber was left for a year or two. Some of them, however, had made a practice of leaving enough scattering timber to supply the settler with lumber for his buildings. The intensive colonization companies in some cases had even removed all the small timber suitable for ties and pulp wood. This provided winter work for settlers, and yielded a considerable net income at times when the market was good. The settlers, however, do not always take kindly to having the land stripped in advance.

EXTENSION PROGRAM

Most of the settlers surveyed would profit greatly from the right kind of guidance in developing their projects and in choosing and caring for their crops and livestock. Relatively few had the kind of experience needed to make them good farmers at once in the cut-over region. Many had no farm experience, or had it too long ago to be of much help. Many had experience only in Europe. Few knew

the technique of land clearing. A large proportion had no experience in managing an enterprise, or were in their present condition because they had been poor managers.

Consequently, nearly all the companies were making some effort to guide their settlers, but with about half the companies it was incidental to their other activities. Their frequent trips with prospects gave them a chance to see many of their settlers several times a year. At the other extreme, several of the companies employed agricultural advisors who called upon the settlers regularly and took records of their progress. One company employed in addition a woman to look after the home, poultry, and garden work. Another company was employing a land-clearing demonstrator. Project XIII had the most elaborate extension program, even issuing mimeographed sheets of information to settlers. This project was working with settlers that averaged nearly 37 years of age, whose net worth averaged only $292 at time of settlement, and was allowing an unusually large margin of credit. It is easy to see why extension work and close supervision were necessary. Several of the companies were making whatever use they could of the regular county agricultural advisor.

DEMONSTRATION FARMS

None of the 15 projects really had a demonstration farm and few land companies in the Lakes States believe in demonstration farms. They consider it better policy to use the successful farms in their territory as examples of what can be done and how to do it. Project VI had a farm that was so named, but its activities were demonstrational only in a limited way. Project XIII also had a central farm, but it was principally headquarters for the company's elaborate program of development and supervision. The difficulty with demonstration farms as parts of colonization projects is that they usually show what can be done if enough labor and capital is expended, and especially if enough high-priced management is employed. They do not show what can be done with an economical combination of the labor, capital, and quality of management available to the ordinary settler. Two companies in the Lakes States, not included in the fifteen, were using demonstration farms in an unfair way, employing the crops grown at great expenditures for fertilizer and irrigation to deceive prospects as to the possibilities of the land.

PATERNALISM

Companies with liberal credit programs can not escape being paternalistic. The more liberal they are, the more paternalistic they must be. To be secure they must look after their loans. They must even tell their settlers what to do and what not to do in many cases. In so doing, however, they lay themselves open to a great deal of trouble. Farming is very uncertain. Frosts may occur at untimely periods. Drought or disease may attack the crops. In fact, a dozen things may happen to make a carefully considered plan prove a failure in any year or over a series of years. An example is found in the program of one land company in encouraging their settlers to build silos. It presently developed that either their settlers were not ready for silos or that the land was too far north for the profitable use of a silo.

If a company stands behind any plan, it must expect to accept the complaints that follow. It is because of these difficulties that the companies are disposed to create separate institutions wherever possible for handling much of the service work for the settlers. It is not strange, therefore, that many land companies favor the old-fashioned policy of selling land on straight 5 or 10 year contracts with no provision for additional credit. Such a policy is fraught with much less grief for the company. The fact is, a paternalistic policy works out successfully only if there is a strong personal touch between the prime movers in the enterprise and the settlers. It will not even do to have the president of the company away too much of the time. Where this personal touch has been neglected, the policy has not worked well. Ill feeling has almost always been engendered as a result and companies have frequently fallen back upon a strictly business policy.

PRICES OF LAND AND COSTS OF SELLING

The price at which wild land of cultivable grade was being sold in 1920 varied from $15 to $50 per acre, in the districts visited by the field investigators, depending upon location and quality (fig. 12). The bulk of it was sold at $25 to $35 per acre. These prices do not include the improvements that were sometimes furnished with the land. The price depended upon what the company had to pay for it, upon the company's selling costs, upon the cost of the colonization service rendered, and upon the company's margin of profits (Table 25).

Five or ten years ago, much good land could be bought in large tracts for $5 to $7 per acre and even less. At the time this survey was made wholesale prices for wild land were as high as $12 an acre. After the companies had added the costs of their services and sold it for $25 to $35 per acre, most of the landowners in the same general territory considered that their land was worth the same price. In fact, one of the bad results of intensive colonization is the tendency to increase the general level of land valuation outside of the colonization projects, a level not justified by the special services rendered by the companies themselves to settlers within their projects.

TABLE 25.—*Comparison of prices for wild lands on 15 projects, index numbers being based on average price for the year*

Project	Index of retail prices of land	Per cent noncultivable	Project	Index of retail prices of land	Per cent noncultivable
I	101	9.5	IX	114	9.6
II	70	8.2	X	119	7.4
III	99	3.0	XI	92	22.0
IV	106	8.0	XII	85	10.6
V	123	11.6	XIII	76	11.1
VI	105	10.7	XIV	101	10.7
VII	81	2.0	XV	96	19.8
VIII	78	2.4			

Selling costs varied from $1 per acre to $10, and even $15 in the case of companies not very successful in making sales. Companies with modest sales organizations were selling at a cost of $5 per acre

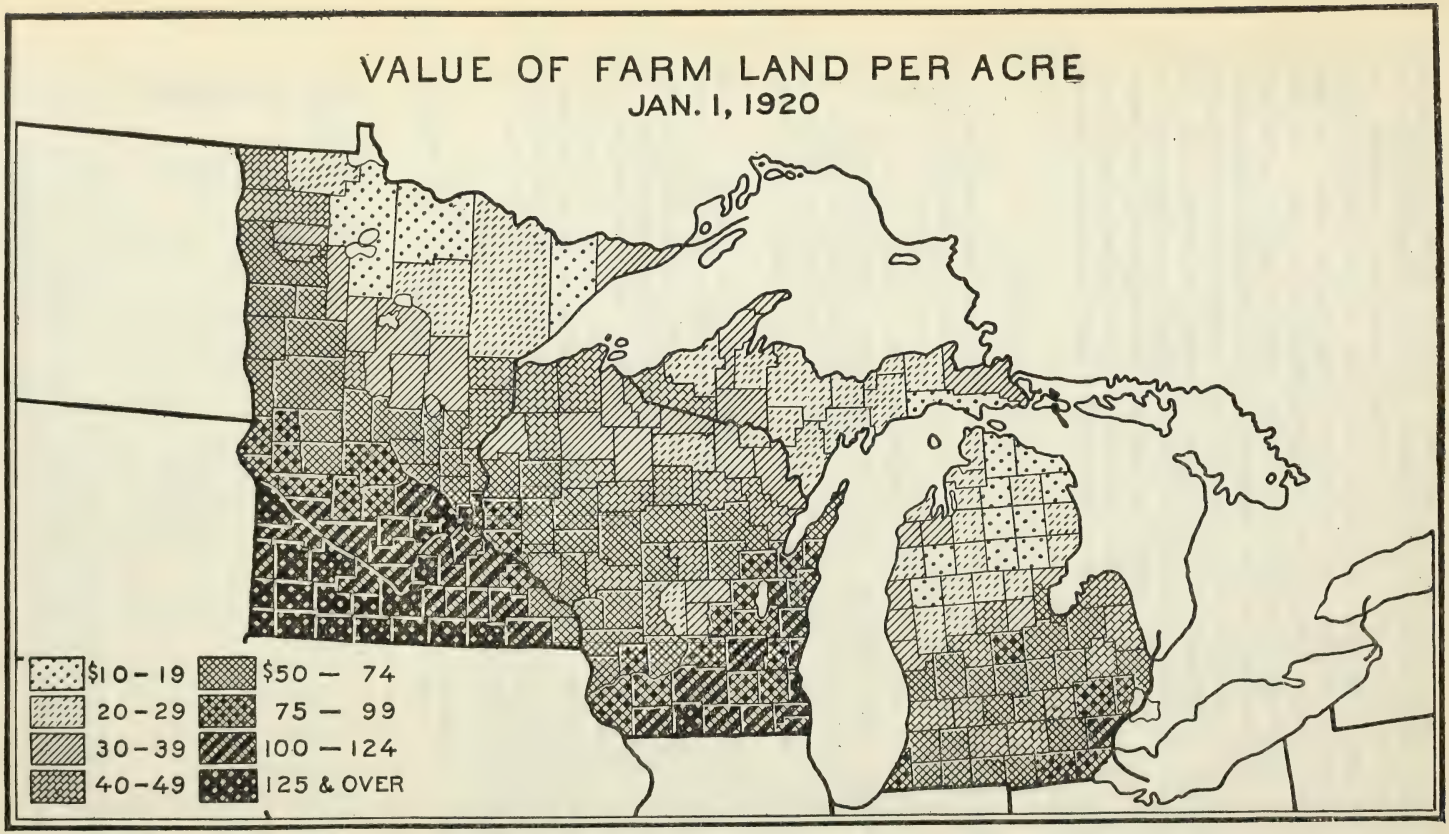

FIG. 12.—Comparison of this map with Figures 3 and 4 shows that in 1920 the average valuation of farm land per acre corresponded closely with the proportion of the land area improved or in crops. In the older settled portions of the underdeveloped region of the three States the average valuation of farm land ranged from $40 to $74 per acre. In the newly settled areas the range is from $10 to $39 per acre. In northern Minnesota, the northern peninsula of Michigan, and most of the underdeveloped portion of the southern peninsula there are few counties where the average valuation of land in farms is as high as $30 per acre

or less. The elaborate and powerful sales organizations were spending around $10 per acre in making their sales. These differences in costs are important from the standpoint of the settler. If the settler has made up his mind to buy a piece of cut-over land if he can find the right kind, he probably does not need to pay $10 per acre to be convinced that he ought to buy. He will do better dealing with some company with a milder selling organization. The same is true in regard to the intensive type of colonization service. This is a considerable expense to the company. It is worth while only to the settlers who need it. The making of advances to settlers and the maintenance of elaborate service organizations are valuable services only to those who do not have the necessary means or experience. However, there are some elements in the services of reputable colonization companies which are valuable to any settler, especially the road building and the selecting of suitable land.

Prices at which land is sold do not vary in proportion to differences in quality. In fact, if some of the land that is selling for $35 an acre is worth only this, that which is selling for $15 or $20 is worth practically nothing. This does not mean that the latter land will never be worth anything, but that it is not worth anything for settlement while there is so much better land that can be obtained for from $30 to $35 an acre.

Since the land in the different projects was sold in different years at different price levels, the prices are not directly comparable. In the index of prices in Table 25, prices are compared with the average price of all land sold by all companies the same year. The range of index numbers is from 70 to 123. The land in Project V was sold at 23 per cent above the average for the same year; and the land in Project VIII at 22 per cent under the average for the same year. Yet the quality of the land was about the same, all things considered. The projects of the intensive colonization type, such as IX and X, were selling at higher prices than those giving little or no service, such as II and III.

Projects XI and XIII were of the intensive colonization type, but their land was of lower grade. The percentage of noncultivable land also needs to be taken into consideration. The land of Project XV was sold for about $17 per acre, but this was not really cheap when reduced to a comparable basis, and particularly in view of the fact that 19.8 per cent of it was noncultivable.

About 15 per cent of all settlers covered in the survey thought they had paid too much for their land; and it is significant that most of these were living on the projects which in Table 25 are indicated as high, taking account of proportion of noncultivable lands.

In Table 26 the portion of the settlers' taxes chargeable to land alone, excluding personal property and buildings (assuming that buildings and land were assessed and taxed at the same rate), is reduced to a per-acre basis. It was highest in those projects where the land was most improved, IV and XV, and in those projects where rapid development was taking place, IX and X. On those projects where roads were very poor, I and VIII, taxes per acre were low. In some cases the lumber companies by their control of local politics had been able to delay road building. A tax of 42 cents per acre, as in Project IX, capitalized at 6 per cent, equals $7 per acre. The 11-cent tax on Project VIII represents on the same basis only $1.83

per acre. Other things being the same, the land in Project VIII should sell for $5.27 more per acre than the land in Project IX. However, the value to the settler of the better roads in Project IX may be more than $5.27 per acre. Projects IV and XV were old colonies with half or more of their land improved.

TABLE 26.—*Land taxes per acre on 12 projects*

Project	Taxes (per cent)	Capitalized value at 6 per cent	Project	Taxes (per cent)	Capitalized value at 6 per cent
I	13.4	$2.23	IX	42.0	7.00
III	36.0	4.00	X	38.6	6.43
IV	78.0	13.00	XI	25.1	4.20
V	26.0	4.33	XIII	25.6	4.27
VI	25.3	4.22	XIV	34.0	5.67
VIII	11.0	1.83	XV	77.0	12.83

SELLING METHODS

A wide range of differences in methods of selling and types of selling organization were found. In some cases one man was handling all of the selling, looking after the advertising, locating prospects in the supply areas, showing the land, and looking after the settlers after they were located. At the other extreme were companies which maintained a local sales organization consisting of a chief with two or three assistants, a central sales office in a large city, with a head salesman in charge and several assistants, sales superintendents in charge of districts into which the sales territory was divided, and local and traveling agents scattered throughout each of these districts. When a prospect had been located by advertisements or other means he was followed up by the proper agents and superintendents in each district until he was brought to the stage where he was ready to look at the land. Then one of the agents went with him on the train, a local agent joined them when they reached the local office, and the two agents together made the sale. Between these two extremes were all kinds of gradations. Most of the companies had a local sales force and offices in one or more central cities, such as Chicago, Milwaukee, and Minneapolis.

There are a number of objections to the policy of employing strong selling organizations and methods. The selling of the land is the easier part of colinization, but it may be a very expensive part. The most difficult task in colonization is to keep the settlers contented and to make them successful after they arrive. There is danger that a sale may be made to a person who never really wanted the land and will regret his decision after he has signed the contract. There is always danger that the agents can not be controlled. In their anxiety to make sales they are very likely to overstate.

Two of the 15 companies had entirely abandoned the employment of salesmen, because they could not make them obey instructions as to representations. However, one otherwise high-grade land company has retained on its staff for several years a certain successful salesman against whom 20 settlers made specific charges of misrepresentation.

Nearly a fourth of all settlers surveyed accused the companies or their agents of some form of misrepresentation. The following are the most common:

Quantity of stones on the land not accurately represented by salesmen	40
Misstatements as to swamp or hills included in their purchases	15
Incorrect land lines shown	15
Understatement of difficulties of clearing land	20
Overstatement of possibilities as to growing corn	10
Overstatement of opportunities for obtaining outside employment	22
Overstatement as to ease of making a living at the start	46
Promises unfulfilled as to roads, schoolhouses, mail routes, markets, outside labor, etc	48

Some of the foregoing cases trace back especially to the companies' advertising and some to failure to control their agents. Some of the companies try to protect themselves by making the purchaser sign a statement in his "field agreement" or "application to purchase" that he has carefully examined the land, and that he is making his purchase on the basis of what he has seen for himself and not on the basis of any statements made by the agent. At the most this saves the company only from legal liability. A better plan is to force the prospect to make a careful examination of the land. Nearly 20 per cent of the settlers surveyed stated that their examination was not thorough enough. Twelve of the settlers actually purchased in the winter with snow on the ground. At other seasons, brush, and dead leaves may effectively cover the smaller stones.

The advertising of the 15 companies was relatively free from misrepresentation, but there were certain characteristic overstatements. The most important related to the possibilities of making a living on a cut-over farm right from the start. Table 22 shows that not until the fourth or fifth year did the settlers obtain over half their money income from their farms. These are average figures. Many do better than the average, and many do worse. Various plans for furnishing aid to settlers reduce the period somewhat, but on the whole surprisingly little, for they attract settlers with most limited means. On Project III, for example, the settlers were given no special credit or advances, but their beginning net worth was $1,821 (Table 20). On Project IX, they were given $570 worth of buildings, livestock, etc., but their beginning net worth was only $1,086. After making their initial payment on the land, the settlers on Project III had $215 more cash on hand than those on Project IX.

Closely related to the foregoing are the misleading statements frequently made as to the value of a cut-over farm and the time that will elapse before it is developed into a real farm. Table 21 indicates that the farm capital (value of land, buildings, livestock, equipment, etc.) of a cut-over farm increased at the rate of about $400 per year, and that it amounted to $6,000 by about the seventh year. Much of this increase represents rise in the level of the price of lands rather than an increase in quantity of productive wealth. The pictures of farm homes exhibited in the advertising circulars usually represent conditions that would require from 15 to 30 years of development.

Statements made as to the possibilities of growing corn are of interest. The county seat of Forest County, Wis., has had its latest killing frost during the last 12 years on June 3 on the average,

and its first killing frost on September 14 on the average. A circular issued by a company selling land in this county contained the following statement:

> This county will grow large crops of all grains such as wheat, oats, rye, barley, and corn every year. * * * It should, of course, be understood that we do not try to raise the big ears that are produced in Illinois, but with our soil conditions we can raise several smaller ears on the same ground where one big ear is raised farther south.

A company selling land where the growing season is 25 days longer is sufficiently conservative to omit corn from its list of crops.

Another company claimed for its territory the climate of southern Illinois because it happens that a small part of its tract, situated on the shore of Lake Michigan, has the same growing season as northern Illinois. There is a vast difference, moreover, between a lake-shore growing season 45 degrees north and a Corn Belt growing season 42 degrees north.

Many interesting statements are made as to the soil and value of the land. "The official reports," says the circular of one company, "show that the entire State of Wisconsin receives a greater net return per acre for its crops than any other State in the Union." In another circular the average value of an acre of potatoes is given at $47.50, of which one-half is deducted as expenses and the balance assumed to be the correct net return, amounting to 24 per cent on a $100 valuation. Another company naively quoted certain supposedly official figures showing that Wisconsin's corn yield is 40 bushels per acre, and that of Illinois 29 bushels.

Most of the companies make much pretense of carefully selecting their settlers, and yet a very large number of doubtful settlers are found on their holdings. This is especially the case where land is being sold on easy terms under a liberal loan policy. Apparently, the desire to sell and in some cases the need to sell, in order to make any profit out of the business, has forced the companies to sell rather recklessly; and the condition has been made still worse by the tendency for prospects themselves to misrepresent their own financial condition.

The first step in selecting settlers is to determine upon the policy to be followed. The prospects attracted by easy terms and special credit facilities will not all be people of small means but a large majority will be. The second step is to place the advertising where it will reach the kind of people desired. Those seeking farmers advertise in farm journals or country weeklies. Those seeking "back-to-the-landers" advertise in city dailies. Those seeking foreigners advertise in foreign-language dailies and weeklies. What the company features in its advertising will also help to determine the kind of prospects who will respond. Location of agents is determined by similar considerations. It was common to find small groups of settlers in one colony all from one city or village in Illinois, Iowa, Indiana, etc. This means that an agent of the colony was stationed there for a time. Most of the agents are stationed in the larger cities, such as Chicago, Milwaukee, Minneapolis, and St. Paul.

The next step in selecting settlers is to examine the prospect. Several companies had elaborate schedules or "registration blanks" which they required the prospect to fill out, or the agent to fill out for him. This is the point at which an undesirable prospect should

be discouraged, but agents can seldom be trusted to do it properly. They are likely to send most of the prospects on to the colony; and once the prospect has reached the colony, few are the salesman who will send him away without selling him land.

Many of the companies follow the practice of having only an application to purchase drawn up in the field. The company reserves the right to reject the application and return the small amount paid down to bind the bargain. This, however, is chiefly a formality. Few of the applications are rejected.

There was considerable difference of practice as to what may be called "herding the prospects." A company might have its agents accompany the prospects on the train, and stay with them from the time they got off the train until they left. Others let the buyers make the trip alone, hunt up the local office after they arrived, look over as much land as they pleased, and talk with anyone in the community. This practice, however, was decidedly the exception. Usually the prospect was well watched after he arrived, because of the activity of competitors and "curbstone" operators. The land companies may have the best intentions in the world in this matter, but after the curbstoners rob them of three or four sales they are likely to change their tactics. The companies naturally feel that after they have gone to the expense of advertising and locating the prospect and bringing him into their territory, they are entitled to reap the benefits.

The 510 settlers who were asked how they were attracted to their particular colony or territory, gave answers as follows:

Advertisements primarily	274
Agents primarily	55
Both advertisements and agents	15
Relatives and friends in the territory	130
Lived or worked in the territory	23
Through public officials	4
Accidentally	9

No doubt many who were first attracted by advertisements were also solicited by agents before making the examination trip. Over 30 per cent of them came without any expense to the company. Projects developing rather slowly, such as III, relied particularly upon help from their present settlers in attracting friends and relatives to the colony.

POLICY IN SELLING PARTLY IMPROVED LAND

Many of the companies dealt in partly improved farms in their general territory chiefly because many of their prospects, after looking over the wild land, would decide that they did not care to attempt to make a start in the wilderness. However, they could be sold a farm upon which land had been cleared and buildings had already been erected. The companies thought they could not afford to forego the profit from making a deal with this kind of prospect, so they made a practice of listing or of securing options on desirable partly improved farms in their territory. Another reason was that the bringing of settlers on to the wild land usually raised the price of partly improved farms in their territory, and if the colonization companies could secure options on these farms early in their operations they

could profit from the increments which they themselves had helped to create. Moreover, in some cases the price of partly improved land was so low as to make the company's prices look unduly high. By securing options or listing most of the partly improved land in the territory, the companies were able to raise the prices, or "stabilize" them, as they expressed it. An additional reason for this policy was that it filled the territory more nearly full with the company's own settlers, which is desirable from the standpoint of community organization.

FINANCING OF THE COLONIZATION COMPANY

Companies selling cut-over land which they originally acquired for lumbering are in a more favorable position in the financing of their colonizing work than the companies which have purchased their land for resale. The investment of the former class consists mostly of taxes and a little overhead expense, together with compounded interest. The cash payments they receive on the land enable them to make advances to settlers out of current receipts. Such companies usually sell on contract and do not give mortgages as security for loans.

On the other hand, the colonization companies developing tracts of land which they acquired for this purpose usually need to keep their investment low, because their funds are likely to be limited and because their profits depend upon their rate of turnover. Plans used for financing operations were as follows: (1) Selling mortgages as soon as the settlers' holdings are so improved that the balance of the debt can be put into salable mortgages. (2) Putting the mortgages up as collateral, say, at the rate of $120,000 of mortgage collateral for $100,000 of loan, the ratio allowed depending upon the condition of the settlers' holdings when the mortgages are written. Under this plan, the colonization company has to stay with its settlers and look after them until the mortgages are finally paid off. (3) Using contracts as security for bond issues. The land company secures the bond company by hypothecating its equity in the land sold on contracts to settlers.

Companies that were acquiring lands for purposes of sale obtained them under various arrangements, as follows: (1) Buying outright, which takes a large amount of capital; but if the margins are large and sales are made rapidly, the amount required is less than one would suspect. (2) Acting as agents for landowners, the landowners paying all expenses, advancing loans, and paying the salaries and commissions. (3) Obtaining an option from the landowners, which usually required a general cash payment at the time the option was made out, and the agreed-upon price per acre whenever any piece of land was sold to a settler. Under such an arrangement, there might be duplicate transfers whenever a sale is made, one from the landowners to the colonization company and the other from the colonization company to the settler; or the colonization company might carry the settler on contract until the deed was finally granted, when there was a double transfer or else the deed was made direct from the landowners to the settlers. Amount of capital required depends upon which of these plans is followed, upon extent of colonization service and loans to settlers, and upon rate of selling.

SUMMARY OF SETTLERS' PROGRESS

Table 27 summarizes the progress of the 583 settlers in the 15 colonies surveyed. In an average period of three years, their land had increased in value $1,176 per farm, or $5.50 per acre per year. They had cleared 7.35 acres per farm, or 2.45 acres per year; had brushed 6.63 acres per farm, or 2.21 acres per year; and had cleared 2.43 acres of marsh per farm, or 0.81 of an acre per year.

TABLE 27.—*Summary of progress of 583 settlers, Wisconsin and Minnesota*

Items of inventory, net worth and net gain	Averages per farm	
	At time of settlement	At time of survey
Value of land	$1,581	$2,757
Value of buildings	237	816
Value of livestock	143	535
Value of equipment	47	160
Value of supplies on hand	22	54
Cash on hand	569	158
Total assets	2,599	4,480
Land debt	1,314	1,432
Other debt	48	192
Total debt	1,362	1,624
Net worth	1,237	2,856
Increase in net worth	1,619	
New capital invested	111	
New capital withdrawn	40	
Net gain	1,548	
Net gain per year	516	

Wild land in the vicinity of these colonies increased in value during this period at an average rate equivalent to $175 per year for farms of average size, or $3.04 per acre per year. This leaves $2.46 per acre per year for the entire farm as due to clearing and brushing. By reducing brushing and clearing to an arbitrary clearing equivalent it is estimated that there was an increase of $49 for each acre of clearing (p. 57.)

On an average per farm there were increases per year of $193 in the value of buildings, $131 in the value of livestock, and $48 in the value of equipment and supplies.

On the other hand, since settlement, cash on hand had decreased an average of $411 and debt had increased $262. These settlers on the average obtained $111 of funds from outside sources, but spent $40 for purposes not properly considered a part of the business of living on a cut-over farm. After allowance is made for these two items, the settlers gained $1,548 in the average period of three years, or $516 per year. All of this represented actual achieved progress except part of the $175 due to rise in the price of land. Even a part of this was due to community development. It thus appears that although these settlers were not building up their incomes very rapidly, they were making appreciable progress in wealth.

Table 28 shows the economic status of settlers grouped in accordance with length of time since settlement. It is assumed, for example, that the particular group of 81 settlers who had been on their

holdings between two and three years is a fair sample of all settlers at this stage; and the same for the other three groups of settlers. It is to be noted that the average net gains per year are all below the average for all the settlers from whom schedules were obtained. As a matter of fact, the larger net gains were mostly made by the half (nearly) of the settlers who had been on their holdings less than two years, but who in that short time had realized nearly all of the increase in the general level of wild land values that took place during the period. Hence, the longer the period since settlement, the lower the average annual net gain.

TABLE 28.—*Progress made by 162 settlers in Wisconsin and Minnesota classified according to the time since settlement*

Measures of progress	81 settlers, 2 to 3 years	38 settlers, 4 to 5 years	18 settlers, 7 to 8 years	25 settlers, 9 to 10 years
Acres cleared	5.0	8.9	14.2	19.2
Acres brushed	7.0	11.5	18.4	20.8
Acres in crops	8.5	16.0	20.4	22.0
Number of horses	1.2	1.7	2.0	2.3
Number of milk cows	1.7	2.4	4.2	5.8
Number of other cows	0.8	1.4	2.3	2.5
Receipts:				
From crops	$60	$87	$122	$142
From livestock products	90	118	245	360
From livestock sales	25	45	77	99
From timber products	100	52	31	14
From labor off farm	340	313	190	140
Total receipts	615	615	665	755
Value buildings	550	880	1,240	1,315
Value machinery	120	230	400	465
Value of livestock	500	670	930	1,020
Value of land	2,220	2,420	2,800	3,250
Assets	3,390	4,200	5,370	6,050
Land debt	1,200	1,340	1,200	1,145
Other debt	180	120	370	250
Total debt	1,380	1,460	1,570	1,395
Net worth now [1]	2,010	2,740	3,800	4,655
Net worth at beginning	990	1,160	1,188	1,450
Net gain	1,020	1,580	2,612	3,205
Net gain per year	425	380	340	345

[1] After making correction for new capital invested and capital withdrawn.

Evidently the rate of progress on the different projects can not be compared directly. In the first place, the average time since settlement varies from 0.33 of a year on Project XI to 9.45 years on Project IV. Second, the settlers on the different projects vary greatly as to beginning net worth, percentage of foreign born, farm experience, previous occupation, and the like. Effort has been made to adjust for the difference in time since settlement by comparing each individual settler's progress with the average of all settlers on their holdings the same number of years. In Table 29, the 15 projects are thrown into two groups, according to whether the land company furnished aid in one form or another, and compared as to rate of clearing and net gain. However, only five of the seven classified as

furnishing no aid were clearly in that class; and only four of the other eight were practicing what may be called intensive colonization methods. The table shows clearly that the settlers on projects receiving little or no aid made larger net gains and cleared more land than the settlers on projects receiving aid. When the classification is further defined, in the second part of the table, the difference is even more pronounced. But the 120 receiving no aid had nearly $1,800 at the start, and a much larger percentage of them had come directly from farming. In fact, there was more difference between them than is indicated by these special circumstances, which may mean that the less paternalistic companies were attracting settlers with more initiative and energy.

TABLE 29.—*Comparison of rates of progress on colonization projects classified according to whether little or much aid was given to settlers*

Characteristics of the various groups of projects	7 projects little or no aid (Projects I to VII)	8 projects aid (Projects VIII to XV)	5 projects no aid (Projects I, II, III, V, VI)	4 projects intensive methods (Projects IX, X, XI, XIII)
Number of settlers represented	211	372	120	226
Beginning net worth	$1,541	$1,033	$1,792	$906
Size of purchase (acres)	82	67	95	66
Percentage foreign born	65	47	48	37
Percentage farming as last previous occupation	31	24	50	27
Index of net gain [1]	110	92	136	96
Index of land clearing [2]	106	97	120	106

[1] 100=average net gain of all settlers in the same year of settlement.
[2] 100=average land cleared by all settlers in the same year of settlement.

It should be recognized that this analysis does not present the whole case. Settlers visited were those who had managed to stick to their holdings thus far. No records were obtained from those who had moved away. It was impossible to obtain authentic data as to the number who had left the various projects. What evidence was obtained indicated that the companies giving aid to settlers were keeping a larger proportion than those which were not giving much aid. The former class of companies were accomplishing this in various ways, such as by finding work for settlers, by lending a little money to tide them over until work could be found, and by extending the period of payments and giving the settlers an opportunity to return to the city for a while. When a settler had made up his mind finally to quit, they had usually found some one to take his place immediately, and had thus preserved the continuity of the project.

The effect of such a program had been no doubt to keep in the colony a good many settlers who would have been starved out on the projects giving no aid, thus probably lowering the average accomplishment for the group.

Indices of net gain were constructed by adding to net gain from other sources an allowance of $50 per acre for each acre cleared, $20 for each acre brushed, and $15 for each acre of marsh cleared. The index on this basis for the five projects with no aid was 136; for the four projects using intensive methods, 96.

ANALYSIS OF SETTLERS' PROGRESS ON INDIVIDUAL PROJECTS

Consideration of the special conditions and indications of progress on individual projects throws considerable light on experience in colonization under conditions in the Lakes States. Following is a brief analysis of the 15 projects from this point of view:

I. Settlers on Project I made the best clearing and net gain record of any group, because nearly all had had experience in cut-over farming before coming here. Many were settlers making their second start as pioneers or were sons of settlers. Their clearing program included marsh clearing.

II. The Belgians on Project II came mostly from farms, and were among the very best settlers found anywhere. Their net gain and clearing record were as good as upon Project I. The group of Finns was developing more slowly, partly because of their land, partly because of their isolation, and partly because of the character of the group. However, they had their farms on a going basis and were slowly improving their buildings. Moreover they had reduced their indebtedness by $120 per settler, a showing made only on two of the other projects studied. Dairying had been their salvation. They averaged seven milk cows per farm.

III. The group of 31 settlers visited on Project III had an average beginning net worth of $1,821. Nearly half of them came directly from farms, and practically all had farm experience. The company advertised only in farm papers and had no agents; the settlers therefore were neither of the class which is attracted by easy terms and special features, nor of the class which is forced into buying by high-pressure salesmanship. They had $766 of cash on hand after settlement; consequently, they worked off the farm less than was the case with most projects. Average receipts from labor off farm and from timber products were only $140 per year for first and second-year settlers. The third-year settlers had an average of 7.3 head of cattle, and had livestock receipts averaging $250. The clearing record of the settlers on this project was only a little above the average, but they had increased their inventories in buildings and livestock much more than the average. The index of net gain was one of the highest. The farms sold averaged 40 per cent of merchantable timber, which means that timber products were likely to be one source of income in the future.

IV. The 18 settlers visited on Project IV were mostly Polish settlers who had been on their farms an average of 9.45 years. Although their average beginning net worth was only $1,106 in 1909 and 1910, this would equal almost twice that amount at 1918 to 1920 price levels. The land company gave them easy credit terms and some supervision, but made no advances of any kind. They were in debt an average of $1,300 more in 1920 than when they started, but they had erected buildings worth $1,589 per farm, had accumulated $1,076 worth of livestock, and $331 worth of machinery. They had cleared an average of 27 acres per farm, had brushed an additional 20 acres per farm, besides clearing 5 acres of marshland per farm. Thus, only about one-fourth of their farms was still in brush and timber. Their receipts in 1919-20 averaged $1,045 per farm, of which 73 per cent was from their dairy herds, which averaged 7.6 milk cows per farm besides 5.8 head of other cattle.

Thus, these settlers had made excellent progress in every respect. Their thrift and industry and especially the easy payment policy of the company enabled them to develop their farms even though getting more and more into debt.

V. The plan for Project V involved a good deal of vague and indefinite talk about such things as community cooperation, community planning, and the like, but it did involve a considerable amount of real aid for the settlers. For some reason, the lumber company behind the plan abandoned it shortly after its initiation, with the result that the 21 settlers covered in the survey were operating under ordinary five to eight year contracts with no advances of any kind. The initial payments made were unusually low, being only 10.8 per cent of the purchase price. But the average beginning net worth of these settlers was only $832, next to the lowest of any group; consequently, they had an average of only $406 of cash on hand after settlement. They bought only 47.4 acres of land on the average, less than any other group studied, but paid more per acre for it, relatively speaking, than any other group (see Table 25). The cultivable land was of excellent quality, but the area was remote and raw. The 21 settlers

surveyed were 65 per cent foreign born, and only 19 per cent came directly from farms.

As would be expected, the record of these settlers was considerably under the average both in clearing and in net gain. They had been on their holdings 2.02 years, and had cleared only 4 acres per farm and brushed only 6 acres additional per farm. The receipts of the 10 first and second year settlers from labor off the farm and timber products averaged $340; and of the 11 two to five-year settlers, $520 per farm from these sources. These 11 settlers were milking less than 2 cows each. This, therefore, is essentially a group of settlers still engaged in lumbering more than in farming. Of the area of farms sold 36.9 per cent was still in merchantable timber.

VI. The company of Project VI used high-pressure methods of selling, but sold mostly to prospects of considerable means; or if it sold to the other kind, the sales were made mainly on options. The 21 settlers covered in the survey had used 50 per cent of their beginning net worth as first payments on their land, and the initial payments on contracts averaged 36 per cent of the purchase price, which is a half more than on any other project studied. The 21 farms averaged 146 acres. The price paid per acre was high (index, 105), considering that much of the land had rather light soil.

The average beginning net worth of the 21 settlers was $3,259. This bears out the statement of the company that it did not want its purchasers to move onto their holdings until they had plenty of capital. Hence, the 21 actually found on the project were a select group. Only 10 per cent of them were foreign born, and 42.8 per cent came directly from farms. Most of the others were back-to-the-landers from city trades.

As might be expected, the progress record was an excellent one. The 21 settlers had cleared almost twice as much land as other groups who had been on their land about the same length of time. This was partly owing to the easy clearing of some of the land. The net gain record was about the same as that of Projects III and IV. The receipts of these 21 settlers were over one-third from crops, which is much above the average. They had been somewhat slow in developing their dairy herds, partly perhaps because their previous farming experience had been mainly in the Corn Belt. Their largest increase in inventory was for buildings.

VII. The 73 settlers visited on Project VII were mostly foreign born, but only 23 per cent had no farm experience, and 21 per cent came directly from farms. Their beginning net worth was $1,377, which is high considering that most of them arrived before the rise in price level. The average period of settlement for this group was 5.1 years. The settlers used 35 per cent of their net worth as first payment on their land, and had an average of $621 of cash left on hand. The land company took an active hand in community development but made no advances of any kind to the settlers. The settlers had actually decreased their average land debt by $109 and their total debt by $40 in spite of the fact that a dozen or more of them had obtained Federal farm loans. Their clearing record was about 15 per cent below the average, and their net gain about the lowest of any group. This was because they had made such slow progress with their buildings and livestock. Apparently, they could have used more credit to good advantage. Nearly two-thirds of their receipts in 1919–1920 was from labor off the farm. Apparently, the crops the settlers had obtained from their land had not encouraged them to develop it rapidly.

VIII. All the preceding seven projects have been classified as giving "little or no aid" to the settlers. Project VIII belongs in the "aid" class. Settlers visited on this project were mostly of city type, only 17 per cent having come directly from farms; but four-fifths of the remainder were born on farms. The company had advertised mostly in city dailies. After the settlers arrived they worked in the company's sawmill and logging camps most of the time. They were worth $1,086 on the average when they came, and used only 22 per cent of this as first payment on land. Nearly a fourth of them bought on options, paying down only 12.5 per cent of the purchase price. Those who bought on contracts paid down only 16.3 per cent of the purchase price. The company expected to get its payments out of the settlers' pay checks at the mill. The 30 settlers covered in the survey had an average of $684 cash on hand at time of settlement. The prices paid for land were among the lowest prevailing upon the various projects covered in the survey, and the quality was good. The company advanced credit for lumber, dynamite, and other supplies, and gave a certain amount of supervision. The unpaid bills for

supplies were included in the mortgages that were to be exchanged for contracts as soon as the settler had made a certain amount of progress. Fifteen of the 30 settlers had already obtained mortgages.

The record made by these settlers is exactly what one would expect from the fact that the policy of the company stressed labor in the lumbering enterprises, with farm development only as secondary. Although the settlers had been on their holdings an average of 2.64 years, they had cleared only 5.5 acres per farm and brushed an additional 4.2 acres per farm, which is far below the average. However, they had increased their inventory in buildings $716. They had done very little with crops or livestock, the third and fourth year settlers averaging less than two cows per farm. The receipts from labor off the farm in 1919–1920 averaged $500 for the first and second year settlers, and $625 for the three to five-year settlers. Their other receipts averaged $150 per farm. Hence these settlers had fared well so far as living was concerned even if they had made one of the lowest records in net gain and clearing. The policy of the company as to mortgages had made it possible for the settlers to build, but it had also increased their debt nearly $200 since purchase.

IX. Project IX belongs in the intensive colonization class. The 97 settlers covered in the survey paid down 35.3 per cent of their net worth on their purchase, but this purchase included a house in most cases and frequently a barn and a small amount of livestock and equipment. The settlers estimated the value of these advances at $392 per farm, and their first payments on contracts averaged $383. The settlers visited were mostly of the city type, but 24.7 had come directly from farms and an additional 34 per cent had been born on farms. Of the remainder, about two-thirds had some farm experience. Fifty-six per cent of the 97 were foreign born, mostly Poles. Their beginning net worth was $1,086.

The average settlement period of these 97 settlers was only 1.23 years; 72 were in their first and second years at the time of the survey. In the period of 1.23 years, the 97 had cleared an average of 2.9 acres of high land and 2.7 acres of marsh and had brushed an additional 8 acres. Thus, it was the policy of this firm to stress brushing and marsh clearing at the first stages of settlement. This is a good clearing record, but slightly under the average set by all the settlers who were in their second year at the time of the survey.

Since the buildings had usually been erected before the settlers arrived, they had increased the value of their buildings only $140 during the 1.23 years. But they had increased their livestock and equipment $256. These two increases in inventory, less a decrease of $340 in cash on hand and a $47 increase in debt, plus their increase in value of land due to clearing and brushing, constitute their net gain, amounting to about $375 per year. This again was slightly under the average for all settlers on the various projects who were in their second year at the time of the survey.

An analysis of receipts shows that the 31 settlers in their first years had earned an average of $119 each at labor off the farms, that the 41 in the second year had earned an average of $468 in this way, and that the 20 in the third year had earned an average of $396. The settlers in their third year were milking an average of only 1.3 cows. Thus the settlers were working out a good deal instead of clearing their land. Having their buildings erected in advance gave them a better chance to work out. These 97 settlers had retained, after 1.23 years, an average of $216 of their original supply of $551 of cash on hand, which is an unusual record, speaking eloquently of their thrift.

X. Project X was also an intensive colonization project employing a policy of liberal advances. The 58 settlers covered in the survey paid only $410 down on their contracts but had had an average of $507 advanced to them in buildings, livestock, equipment, supplies, horse labor, etc. Their beginning net worth was $1,111, and they paid 37 per cent of this down on their land. They had $527 of cash on hand after settlement. Nearly a third of the 58 settlers came directly from farms and only 30 per cent were foreign born. A large percentage were city people with some farm experience.

The average time since settlement for these 58 settlers was only 0.61 of a year at the time of the survey. It is therefore difficult to compare their record with that of any other colony. They were clearing land faster than the settlers on Project IX or Project XI, which are more nearly comparable as to time since settlement. In this short period, the settlers on Project X had cleared an average of 3.0 acres of high land and 2.6 acres of marsh, and had brushed an additional 4.8 acres. However, their land was relatively easy to clear. They

had increased their inventory in buildings, livestock, and equipment $408, at the expense of a $343 decrease in cash on hand.

The average receipts of these settlers from labor off the farm were only $72 the first year and $190 the second year and their receipts from all other sources the second year were only $145. This reflects the fact that many of these settlers were in dire need of outside work at the time of the survey.

XI. The 21 settlers of Project XI covered in this survey had been on their holdings for an average of only 0.33 of a year. Hence, their progress record is not very significant. The project was of the intensive type. The settlers were advanced $258 worth of buildings and other equipment at time of settlement and additional building materials later. The company had changed from the plan of erecting buildings in advance to advancing building materials. That the settlers had taken advantage of this is evidenced by their increase after settlement of $500 in building inventory, and of $216 in livestock inventory. They had also cleared nearly an acre of land each, and had brushed nearly 5 acres in addition. But they had increased their debt by $600, and reduced their stock of cash on hand by $410. As far as figures can show, these 21 settlers had made no net gain up to time of survey.

The promoter of this project expected to make it one of a long series of colonization projects. His plan involved a powerful selling campaign, backed up by a large supply of advertising literature and an elaborate service and supervision department. The settlers he was obtaining in 1919 and 1920 were below the average in beginning net worth, farm experience, and stability. Nearly a fourth of those visited had no farm experience. On the whole they were not well pleased with their outlook at time of survey. The land being sold was decidedly mixed in quality, badly scattered. and difficult to reach.

XII. The unique feature of Project XII was the advancing of buildings costing nearly $2,000 per farm. However sold, the terms were impossible to meet. A powerful selling campaign in the summer of 1919, involving round-trip tickets, and fishing on the side, had been employed to attract settlers. In spite of their inability to meet the terms of their contracts, the 12 settlers covered in the survey had made good progress. In an average period of 1.05 years they had cleared 8 acres of high land per farm, and brushed an additional 9 acres although this was partly owing to the fact that the land was relatively easy to clear. They had increased their livestock inventory $450 and the settlers in their second year had obtained $380 of receipts from actual farming operations. Nearly all of these settlers had considerable farm experience, mostly as actual operators, and their average beginning net worth was $2,086.

XIII. The 53 settlers covered in the survey of Project XIII received an average of $258 of advances at the time of settlement, together with some brushing around the buildings. In addition, the company had advanced an average of $265 per year to settlers for purchase of supplies, equipment, livestock and the like, and in the form of horse and machine labor. The 17 third-year settlers covered in the survey had received an average of $726 each in advances, in addition to the initial advance of buildings.

During a period of 2.1 years, these settlers had cleared an average of 9.4 acres of high land per farm, and 0.8 of an acre of marshland, and had brushed 3.1 acres per farm in addition. This record is considerably above the average set by the other settlers in the survey in the same year of settlement. This is accounted for by the horse labor and machine labor advanced by the company, and by the fact that the other advances made by the company rendered it less necessary for the settlers to work outside. This company stressed clearing at the start rather than brushing.

Settlers had increased their building inventory $395, their livestock inventory 418, and their equipment inventory $90. Their stock of cash on hand they could not seriously deplete, for they had only $101 at the start. Although their debts increased $874, they had made a net gain of $475 in 2.1 years, which is a remarkable record for a group of settlers averaging 36.6 years of age at time of settlement and worth only $292, 40 per cent of whom had lived on a farm only in their boyhood.

The land company took $74 of the $292 as initial payment and advanced the settlers an additional $226 the first year, but even at that the settlers had to work out the first year. Their average receipts from labor off the farm the first year were $276, the second year $354, and the third year $377. But by the third year their receipts from actual farming operations averaged $312

and by the fourth year $400. Thus, these settlers were rapidly approaching a point where they need not depend on work outside the farm.

XIV. The policy of the company of Project XIV was halfway between aid and no aid. It was willing to build houses and even clear land in advance. Of the 51 settlers covered in the survey, 19 had houses erected in advance, costing an average of $467 per farm, 5 had barns erected, and 6 had some land cleared. The average value of advances for the 51 settlers was $197. The average initial payment was $393. Thus the company took $196 more from these settlers than it gave back in initial advances. In a number of cases the company gave credit later for building material. It will be remembered that in Projects IX and X, the advances and initial payments were about equal. However, the beginning net worth of the settlers on Project XIV was $1,338, about $250 more than on the other two projects, so that the settlers still had $771 of cash on hand after settlement, as compared with $551 and $527 on the other projects. Sixty per cent of the settlers on Project XIV were foreign born, mostly Scandinavians, and a third of them had come directly from farms.

In an average period of 1.97 years, these 51 settlers had cleared 3.4 acres per farm of high land and 1.6 acres of marshland and had brushed 6.1 acres. Their clearing record was therefore appreciably lower than the average, as well as lower than for Projects IX and XIII, although the clearing was perhaps heavier. They had increased the value of their buildings an average of $496, their livestock $246, and their equipment and supplies $134, making a total increase in inventory of $876, as compared with only about $400 on Projects IX and X. Thus, these settlers had spent more time on their buildings and less on their land as compared with settlers on other projects. During this same period they had actually decreased their debts $8, but had depleted their cash on hand $612. Their net gain was $1,070 for the period, or $543 per year.

Receipts of these settlers from labor off the farm in 1919–20 averaged $450 for those on their holdings over two years, and $354 for those who were in their second year. Thus outside labor was an important feature in development of this project. The settlers averaged only 2.5 milk cows per farm.

XV. The company of Project XV advanced nothing at settlement but advanced an average of $900 in the form of credit subsequently. This was done against a purchase price of $977 per farm for the group of 53 settlers studied. These settlers had been on their holdings for 7.2 years; hence these figures represent price levels of 1910 to 1913 mostly. The settlers were all foreigners, nearly all with farm experience in Europe but only two with farm experience in this country. The land is mostly heavy clay, hard to clear and slow to develop. The farms purchased by these 53 settlers averaged only 57 acres. Many of the settlers paid for their farms entirely before coming to the colony. The average net worth of the settlers at time of settlement was $1,034, of which $518 was cash on hand.

During the period of 7.2 years, the 53 settlers cleared an average of 12.4 acres, all high land, and brushed 5.1 acres. This is a low record compared with Projects II, IV, and VII, which were most nearly comparable competitors in time since setlement. However, the settlers on Project XV had increased their buildings, livestock, and equipment $2,036, although in so doing they had increased their debt $793 and decreased their stock of cash on hand by $474. Their net gain for the whole period was about $1,176, or $163 per year, which is considerably below the average for all settlers surveyed of approximately the same time since settlement.

Receipts from these 53 settlers averaged 53 per cent from livestock, 18 per cent from crops, and 29 per cent from outside labor. Thus the income for their 50-acre farms, only one-fourth cleared, was inadequate. However, the 27 settlers on their places over 9 years had incomes averaging $675 in 1919–20, of which 80 per cent was from farming operations. These 27 farms averaged 5 milk cows each.

OTHER SIGNIFICANT TYPES OF LAND SETTLEMENT AGENCIES

In addition to the large colonies that were surveyed, it is desirable to discuss a number of other land settlement enterprises selected from a much larger number that were studied, either because they

are typical or because they illustrate some particular phase of the land settlement problem. Records were taken from settlers on only a few of these projects.

PROJECTED COLONIZATION ENTERPRISES NOT CARRIED TO COMPLETION BY THE PROMOTING CONCERNS

In the undeveloped portion of the Lakes States a number of enterprises have been projected by promoters whose enthusiasm was greater than their judgment and ability in execution.

One interesting case was that of a concern which had planted a colony of 225 Polish farmers, mostly on 20-acre or 40-acre tracts. The company had built two-story houses and cleared land in advance of settlement, but took all of the settlers' money in initial payments and even then nearly went bankrupt. A local bank and the paper mills saved the situation for the settlers, and consequently only about 10 per cent let their contracts lapse. The land was laid out in narrow strips back from the road and the clearing was done next to the road, giving the impression of a community in an advanced stage of development.

Another dealer tried colonizing 150 Poles, selling them the land on five-year contracts calling for annual payments. The Poles did not make their payments, and the financial burden became too great for the dealer. He solved his problem by writing two to five-year mortgages against the holdings and selling these on the market. The Poles objected, but capitulated after he had closed out a few of their contracts.

Still another case of somewhat excessive optimism is illustrated by a promoter who, with insufficient capital, had established one colony and projected another intended as a part of a series or chain of colonies. As a means of economizing capital, the tracts in question had been bought on an option which required an earnest-money payment at the start and a certain amount in addition each year. Whenever a sale was made, the landholder made a deed to the colonization company, which in turn made a contract for a deed with the settler.

The special features of this project were: (1) Houses being erected in advance were costing $720; (2) effort was being made to attract two different types of settlers, one the kind ordinarily attracted to such projects, and the other, farmers on a larger scale wanting 160 acres or more of land; and (3) a special feature was made of giving the settler the alternative of buying a farm with both land and buildings or with land only.

AGENCIES PROMOTING THE SALE OF LANDS FOR SPECIAL USES

Characterized by a somewhat similar tendency toward undue optimism were a number of concerns promoted with a view to the development of a specialized type of farming. Throughout the United States there have been numerous concerns engaged in pushing land for such uses, most commonly for highly intensive crops capable of being raised on sandy soils. Some concerns of this character have operated in the Lakes States, but not always on sandy soils.

One instance is that of an operator who attempted to develop a potato colony some years ago in northern Minnesota. In this case

the land was laid out in tracts of 40 acres and sold to settlers for a down payment of $25. Lumber for building a house and seed for 2½ acres of potatoes were advanced and 2½ acres of land was cleared by the land company. The total price of the 40 acres was $400, including the clearing and potato seed. The settlers agreed to pay half of their potato crop as a means of retiring their indebtedness. In all, 53 tracts were sold. Only a few of the original settlers were still holding their land in the summer of 1919, and 35 of the tracts had been resold. This enterprise was an experiment in carrying out an idea frequently held by highly optimistic promoters that a man can buy wild land, clear it, grow one or two crops of potatoes or something else on it, and pay for it in a year or two. It is true, perhaps, that such an achievement may be possible in years of exceptionally good harvests and favorable prices, but not as a regular thing. The net income from half of 2½ acres of potatoes would not ordinarily go far toward supporting a family even under pioneer conditions.

It is but fair to say that this operator was not intending to engage in a fraudulent business. The price asked for the land was not high considering the financial risk involved and the overhead expenses of development and sale. The agent himself, as well as the purchasers, was really the victim of the excessive optimism so common with land promotors.

Another firm studied was engaged in promoting the sale of orchard lands on the shore of one of the Great Lakes. This concern was fortunate in having a superior soil, and was appealing mostly to a class of fairly well-to-do people who might wish to combine an advantageous residential location with out-of-doors employment. Some tracts in the settlement were sold to the poorer class of settlers, but with the expectation that they would find employment on the lands of their more opulent neighbors. The methods of the concern appear to have been reputable, although the price asked for their land was high. The land was sold on fairly easy terms, but only about half of the tract was occupied at the time of the survey and it was reported that some of the settlers had had a very hard time.

The land company described (on p. 83) as deliberately engaged in putting settlers on inferior land was selling small 10-acre tracts for poultry and truck farming on sandy jack-pine land.

Still another case of a concern endeavoring to effect settlement of land on the basis of specialized farming was that of a small foreign colony promoted for the most part by exchanging houses in Chicago owned by the prospective settlers for small farms with 5 acres cleared in advance, in order that they might grow a crop of potatoes the first year. The company owned a number of houses in the colony, which it allowed its settlers to use while they were building.

A COMPANY RECLAIMING SWAMP LAND

It was the policy of one company to drain swamp land and then sell it in tracts averaging about 160 acres to settlers having at least $5,000 in cash plus some farming equipment, an amount about four or five times the average initial net worth of settlers on the projects already described. The average terms were $10 an acre cash with

the balance payable in ten equal installments. Of the $5,000 cash, the settler was thus required to pay down $1,600. The company assumed that the buildings would cost the settler $1,600 more, and that he would need the remainder of his money, $1,800, to buy additional equipment and stock and pay the expenses of running his farm for the first year. The rate of interest was 6 per cent, payable annually, and in nearly every case the settler was given a deed and mortagage as soon as he had paid $10 per acre. The methods employed, therefore, resemble those of the regular colonization companies in many respects. Naturally the land had to be sold at prices considerably higher than cut-over land prices, hence only settlers of considerable means could buy.

A RAILWAY COMPANY REQUIRING PURCHASERS TO MAKE IMPROVEMENTS

One of the largest landholders in the Lakes States was a railway company which was not attempting colonization but which had been engaged in a rather active campaign to dispose of its landholdings to farmers. Naturally, as a carrier, the company was concerned not merely with the sale of its land but also with establishing settlers who would contribute to increased traffic. It had made no attempt, however, to provide "ready-made" farms, or to sell the land in compact blocks. It was offering its land for sale at various prices, letting the purchaser buy wherever he wished. No attempt was made to guide the purchaser in the selection of his land, but he must always make an inspection.

The most characteristic feature of the company's policy was that it required purchasers to settle on the land within a reasonable time after purchase, to clear about 2 acres per year for each 40 acres purchased and to build a substantial dwelling house within two years after purchase. These requirements were made a part of the contract, and were "in consideration of the fact that the company was selling its lands at prices somewhat lower than were generally being charged for lands of similar quality." Just what measures the company took to enforce its requirements of improvements was not clear. They could, of course, close out the contract.

The company was not carrying on an aggressive selling campaign, but advertised widely and depended on reasonable prices, easy credit terms, and the quality of the land to effect sales. The sales were made by local real estate agents throughout the territory who were commissioned by the company to dispose of its lands. These agents were not authorized to sign contracts for the company.

LUMBER COMPANIES SELLING LAND WITHOUT ASSUMING MUCH RESPONSIBILITY FOR SETTLERS

A considerable number of lumber companies were engaged in selling land without any particular concern as to its settlement. In some cases no active selling campaign was being carried on, the firm merely selling to such prospects as appeared of their own accord. Sometimes most of the sales were in comparatively large blocks to dealers or speculators, but in other cases to prospective settlers. It is fair to state that there were some large lumber companies having land of unusually low quality who frankly recognized that their holdings were not adapted to settlement and were unwilling to en-

gage in a selling campaign, although the experience of the company described in the preceding section had demonstrated that by sufficiently strong selling methods such lands could be sold so as to yield a good profit over the costs of selling.

On the other hand, there were other lumber companies with land of very mixed quality that were carrying on active advertising campaigns and listing their holdings with local real estate men in prospect territory. Little control can be maintained over the activities and statements of such agents; and, as a consequence, a great deal of misrepresentation results, which may nevertheless avoid legal penalties for specific fraud. Furthermore, some of these companies assumed little responsibility in guiding the settler in the selection of his land, their general tendency being to follow the doctrine of "let the buyer beware." Some of these concerns were also selling on old-fashioned five-year contracts. In some cases little responsibility was assumed for the selection of settlers, except with a view to their financial ability to make the company reasonably safe on the contracts. Without doubt such methods of land selling, although within the law, were responsible for a great deal of hardship and numerous failures of settlers.

Several land companies, fortunate in having land of good quality and favorably located, were disposing of it by mild advertising campaigns to settlers who were largely farmers from the Corn Belt or the wheat-growing regions of the Great Plains. These concerns were not undertaking to provide financial assistance and supervision of the settlers, but they were actively interested in promoting the settlement of their lands, refusing generally to sell merely to speculators and assuming responsibility for the selection of settlers and for locating them properly on the land. These concerns were also careful not to oversell and tried to see to it that the settler had sufficient development capital after making his initial payment. Although they were not resorting to intensive methods of colonization, some of these concerns had been notably successful in accomplishing the settlement of their holdings.

A DEALER SUCCESSFULLY PROMOTING SETTLEMENT WITHOUT USING COLONIZATION METHODS

It may be thought that the dealer is not in so fortunate a position as the lumber company, because he has a heavier capital investment in his land and must therefore employ radical methods of promoting quick sales and intensive methods of colonization to make a success of his business. However, several dealers were found who had succeeded well with a more conservative type of program. One was a dealer who had been successfully operating on a rather large scale for many years. This dealer disapproved of intensive colonization methods and had employed very conservative methods of advertising, but he had always sold land of good quality and his methods had been characterized by the strictest integrity in dealing with those who had bought from him. He had relied upon the good will of his settlers and his conservative advertising to bring him the necessary prospects, and upon the grade of land which he was selling to convince the prospect of the desirability of purchase. Moreover, he had resisted the temptation to sell to settlers

who were not suited by temperament, experience, and available capital to make a success. Long experience had made this dealer an adept in selecting those who were likely to succeed on the land. Furthermore, although he had not seen fit to pose as a colonizer and had not set up any form of machinery for carrying out a paternalistic policy, he took a great deal of personal interest in the welfare of the settlers and gave them valuable advice based on his long experience. In general, therefore, his experience represents an instance of success in land settlement that does not rely upon elaborate methods of colonization, but upon selecting good land and suitable settlers, upon low selling expenses, and upon the strictest integrity in advertising and in dealing with buyers. His contracts were of the old-fashioned kind, running for five years or more and calling for equal annual payments, but he had always granted extensions freely to any settler who had any chance of succeeding. If any of his settlers became dissatisfied he bought them out or otherwise attempted to appease them.

A DEALER CONSOLIDATING FOR RESALE SMALL SEPARATELY OWNED TRACTS

One dealer was operating in that section of Minnesota where nearly all the land is held in small separately owned tracts. The area which he had sold was formerly recorded on the plat book under the names of perhaps a hundred different persons, in tracts of from 40 acres to a few sections. The land was fairly good and he was reselling it, at time of survey, largely to farmers with more capital than most settlers have. Accordingly, he did not need to give any financial assistance. He was bringing in most of these settlers from the county in which he himself had formerly lived and where he had a large acquaintance. He was depending upon the satisfaction of his customers to enable him to attract other prospects. He also carried on a considerable business in buying up the partly improved farms of discontented lumbermen and other transient settlers and reselling them to permanent farmers.

His method of operating was first to look up the records at the county courthouse, check up the titles and then go out and buy. He had spent most of his winters buying land and had done most of the selling in summer. The expense involved in buying the land was fully as large as the expense of selling it, for some of the titles were difficult to clear, requiring the expense of advertising.

The significance of the methods used by this type of land agency rests on the fact that a large part of the good land in northern Minnesota is held in small scattered tracts by small speculators, or by large speculators whose holdings are scattered through many counties. For some years it has been difficult to find land in northern Minnesota suitable for colonization and in tracts large enough so that intensive colonization methods can be used. Moreover, it is generally admitted that there is at present a scarcity of such available tracts in Wisconsin and Michigan. Anyone who goes into the colonization business in the Lakes States is likely to be forced either to use inferior land or to go out and consolidate numerous small tracts by purchase. Most of the colonization companies are either unwilling or unable to do this.

A FIRM BUYING AND SELLING PARTLY IMPROVED FARMS AND SUPPLYING EQUIPMENT ON CREDIT

In the case of one concern the sale of livestock, equipment, and supplies on credit to settlers was the main line, whereas the buying and selling of the partly improved farms was rather a side line, although the volume of such business was considerable. This firm was really a sort of brokerage concern in the buying of livestock, farm implements, and other kinds of supplies at wholesale and furnishing them to settlers on much longer terms of credit than the settlers could secure if they borrowed money on personal security from banks. The livestock was sold on terms of one-third of the purchase price down and the remainder in four equal payments over a period of two years.

Particularly in its dealings in livestock and other supplies the concern was fulfilling a very real need in the region where many settlers had bought land from concerns which did not assume the responsibility of supplying developmental credit. The credit business of the company was underwritten by one or more of the large city banks. The firm was therefore able to borrow the money more cheaply on its well-established credit than the settlers could borrow it from credit agencies in the cut-over region; consequently the firm made a margin of profit, but was in no sense doing a loan-shark business because its terms of credit were reasonable. Its real-estate business, based on long experience and special knowledge of the region, took the form of picking out the special bargains that were offered and disposing of them to persons known to be wishing to purchase. The firm refused to handle sandy lands and confined itself strictly to clay loam land. It also confined its operations closely to regions in which it was familiar with the land, the farming conditions, and the characteristics of the settlers.

LARGE SPECULATIVE LAND WHOLESALERS AND JOBBERS

Several of the concerns studied represent a type of operator more prominent and influential some years ago than at present. These are the large land wholesalers or jobbers who bought enormous tracts of land from the railways, lumber companies, and other large owners and resold them in wholesale lots, either to those who wished to purchase a considerable tract for speculative holding or to dealers who proposed to resell in retail lots. Some of these concerns sold smaller tracts to small speculators, and even to prospective settlers, but they were principally significant as middlemen between the large landowners and the smaller real-estate operators.

One of these concerns bought 700,000 acres at one time and sold the greater part of this holding in about 1,400 lots, mostly to speculators and real-estate concerns. Much of this land was sold to well-to-do western farmers on easy terms. At one time this concern had 1,600 agents scattered throughout the Middle West selling land to farmers who wished to speculate in the cut-over land but who did not expect to settle on it, at least for some time to come. Another similar concern had specialized in selling cut-over land to small speculators and had cleared about $200,000 in three years at this business. It was stated, however, by the manager that this game was about played out, and for the most part the concerns men-

tioned were engaged chiefly in making collections on contracts held. The significance of these concerns is in the effect that their activities have had on the character of landholdings, particularly in Minnesota. They have been responsible for the large amount of absentee ownership and for the diffusion of ownership pointed out in an earlier section of this report.

LOCATORS

The passage of the Volstead Swamp Homestead Law created an especially good opportunity for the class of land concerns known as professional locators. Such agencies are also found in other sections of the United States, and generally they press very close to the margin of fraud if they do not actually violate law.

Several of these firms had been operating in the disposition of the swamp or muskeg lands which are so abundant in Beltrami and adjacent counties in Minnesota. Under the Volstead Homestead Act, freeholders in any district needing drainage may establish a drainage district, issue bonds to cover cost of drainage, and levy taxes against all holders of land in the territory to pay for the bonds, including the United States Government. Since the latter pays no taxes, the law provides that at the end of three years the lands may be sold at delinquent tax sale, the purchasers to pay $1.25 per acre. It was the practice of the so-called homestead locating companies to pay the delinquent taxes, with interest, and procure the land at tax sale. To the $1.25 an acre plus taxes, they added a fee for locating the homestead.

To understand fully the character of these operations, the nature of the area being disposed of must be known. It consists of a vast swamp composed principally of peat. The swamp is rather uniform, except that around the edges the peat is sufficiently shallow so that in some places it has been possible to establish farms.

How these conditions have been seized upon as a basis for misleading advertising is illustrated in the following excerpt from a price circular issued by one of these concerns: For certain lands close to rivers and settled communities where ditches and roads are already built "with soil consisting of a vegetable loam or black loam from one to six feet deep on grayish clay subsoil free from stone, very easily cleared and easily developed for general farming * * * the price is," etc. Such a statement succeeds in avoiding specific misstatement and yet creates an absolutely false impression.

These firms made a great pretense at careful selection and sometimes advertised themselves as agents of the United States Government, as shown in the following quotation:

> We positively guarantee that these complete reports and plats now shown at our office contain all the information required to enable us, who are thoroughly familiar with them, together with the applicant after he comes to our office, to select the best and most valuable tract of government land obtainable on the day the applicant or his application arrives at our office. It has taken many years of expert professional work, involving a great expenditure of money, to obtain all the absolutely accurate information contained in these reports and plats, but when all this vast information is acquired and these plats are complete, same enables us then to absolutely guarantee to each and every prospective purchaser that we, in ten minutes, can and will make, all things considered, a better selection at our office for our customers than can possibly be made by a hurried trip to the land by the average land seeker or anyone else not having the knowledge we have of these government lands, and thus every

common-sense landseeker, can and will, buy this land from the government thru our office with utmost confidence and with absolute assurance of getting the best land there is to be had without going to see the land for himself.

The fact is that the only service rendered is to select on a map a piece of peat land which (since it is muskeg) contains no timber of importance, and which probably may not be economically employed for agriculture for at least another half century, if then. For this service, and for inducing the victim to assume the burden of taxes and special assessments, a sum ranging from $25 to $40 a quarter section, the charge was from $560 to $680 per quarter section in the case of a typical concern of this kind. These prices included the back taxes paid by the company.

The drainage proceedings under the Volstead Homestead Act began about 1910. Between then and 1918, nearly a million acres of land was added to the taxable valuation of Beltrami County alone. The other side of the picture is shown by the fact that in the summer of 1919 out of 80,000 descriptions of land on the tax rolls of the county about 12,000 were delinquent. Most of them were lands to which purchasers had secured title and had then grown tired of keeping up the ditch taxes. In the opinion of some of the local real-estate men, the business of locating Volstead lands was about over, since practically all of the Government lands available had been taken up. However, the business of selling relinquished holdings had assumed considerable dimensions, and there is prospect that unless some measures are taken to put an end to the game, the process of buying in these lands at tax sales and reselling them to unwary purchasers will continue for generations.

Fraud in connection with the operation of the act has not consisted alone in inducing people to buy practically worthless lands through specious and misleading advertising. In some cases homestead rights had been purchased for a small sum. There appear to have been shady practices in connection with the establishment of drainage ditches. Apparently, certain contractors had made a business of establishing drainage ditches and floating bonds, usually on very wide margins.

Although engaged in selling land substantially worthless under present conditions, these locators were not causing any appreciable number to settle on the land; for as soon as the prospective settler saw what he had bought he realized at once the impossibility of establishing himself on it. At the same time he was usually prevented from prosecuting the company which had defrauded him, because he himself had inadvertently violated the law by acquiring a homestead without fulfilling the legal requirement of preliminary inspection.

Many of the victims were small speculators, and there is a distinct tendency among some of the dealers in land to feel that they are justified in " soaking " speculators, though they feel themselves under obligation to deal more fairly with the *bona fide* settlers. A large part of this sentiment is doubtless due to the fact that the local dealers have to live in the same community with the settlers and find the hostility of a disillusioned and often desperate man not only unpleasant and sometimes dangerous, but also a distinct source of difficulty in making additional sales. However, it is not always easy to distinguish between a speculator and an intending settler. A large number of purchasers of these Volstead swamp homesteads have been

farmers from the Corn Belt, probably the majority of whom did not intend immediately to settle on the land they purchased but were looking forward to it in the future either for themselves or for their children.

DELIBERATE USE OF STRONG SELLING METHODS TO PROMOTE SETTLEMENT OF POOR LAND

The agencies just described, although distinctly fraudulent in intent and method, probably have not done so much harm as have concerns which have induced settlers to purchase land of very inferior quality with the expectation of actual settlement. In the case of the firms selling Volstead lands people were fleeced out of their money; but they were not induced to incur hardship and privation in an unequal struggle with poor soil, refractory stumps, a rigorous climate, and insufficient facilities for transportation and marketing. Such a type of concern is one which had been operating in one of the Lakes States for nearly 20 years, selling for the most part jack-pine sandy lands without clearing or improvements (except in the case of resales) at prices about on the level with those charged for much superior lands by some of the better types of land concerns.

On the surface it would appear that this company had been pursuing entirely legitimate business methods and had been genuinely trying to confer substantial benefits on those who bought from it. The managers made a careful selection of the people to whom they sold, based on the most elaborate and detailed information which their field men were required to furnish concerning prospective purchasers. The company explained in its literature that it did not clear land in advance for the settler, but that it would see to it that the settler had access to those who could supply him with necessary facilities. It maintained an experimental farm and employed agricultural advisors to call on new settlers at frequent intervals to see that they were working along right lines and to give them needful advice and assistance. Although it did not guarantee work to the settlers, it tried to keep in touch with organizations that hire labor, and employed settlers on such work of its own as was available. The concern made a practice of selling the land on very easy terms and occasionally loaned money to the settlers for development up to 50 per cent of the value of their equity in land and improvements. It followed the policy of granting extensions of payments to those settlers who showed evidence of a real desire to make good. Moreover, it strongly advised its settlers not to move to their tracts until they had at least $1,000 in cash.

Certain comments are necessary to interpret these facts. This company had been bringing large numbers of settlers to this territory each year for nearly 20 years, yet the principal tract they had been selling was still very much of a wilderness at the time this survey was made. This was partly because some of the buyers were small speculators who did not intend to settle on their holdings or who intended to settle at a much later date. But the main explanation is that a large proportion of the purchasers discontinued their payments and never became settlers, and many of the purchasers tried to establish themselves on the land and failed after a hopeless struggle. As one travels through the territory, however, only a few abandoned homes and clearings are in evidence. This is because the land company endeavored to resell these as rapidly as they were

vacated, for it would have been a serious disadvantage if abandoned homesteads were too much in evidence when prospects were shown the territory. This motive also accounts in large part for the efforts made by the company to help the settlers establish themselves on the land. At least a few satisfied persons were needed to maintain a good local atmosphere.

The difficulty the firm must have encountered in making a few settlers hold on to their undertakings is indicated by the following description of conditions in an adjacent township where soil and topography are essentially similar, but where settlement had been spontaneous rather than promoted by an active land-selling agency.

> There are more abandoned clearings in this township than there is land now being cultivated. Much land is being sold, our courthouse records gave us that, more transfers and recording and abstracting than in a big Corn Belt county by far. Lots of people moving in and out again. But a man is a plain fool who tries to carve a farm out of the woods when he can buy going farms for no more and sometimes less than the current price of wild land as sold by the big operators. And they all find that out. So almost without exception they shift to cleared land or get out.[4]

It should be noted further that the demonstration farm conducted by this concern was essentially a means of imposing on the credulous, for it was developed on this light sandy land by bringing in manure by the carload.

Furthermore, the selection of settlers was not made primarily for the purpose of putting on the land those most likely to succeed. Important considerations had been the amount of cash the settler had, his prospect of getting more, and whether he was of a quarrelsome disposition likely to make trouble after the realization of his unfortunate purchase dawned upon him. Indeed, only half the settlers visited had ever previously earned a living on farms either as farm operators or as farm laborers, although a few others had lived on farms as children.

The service department with its agricultural advisors appears to have been designed partly as a selling point, partly to help maintain enough people on the land to make a good showing to prospects, and partly to help to allay discontent and hostility toward the company. This is indicated by the instructions to members of the settlers' welfare department In addition to pointing out to them the importance of being able to give the settler good advice on matters of planning and constructing buildings, clearing land, selecting and making crops, and caring for livestock, the service representatives were told to look out for the "knockers" and to try to keep them in a cheerful frame of mind, to help the settlers out with a day's work now and then, and to bring the settlers to town occasionally in the company's cars, but under no circumstances to incur any financial obligations to them or make any temporary advances of money. In other words, if any settlers were going to follow their purchase up to the point of actually moving on the land, the firm wanted them to move on under the most favorable circumstances, because it was not to the interest of the concern to have many dissatisfied settlers on the tract.

Only a small proportion of the purchasers ever reached the stage of moving onto their lands. Of those who did, some undoubtedly managed to stick, largely by virtue of considerable outside work

[4] Excerpt from a letter of one of the field men.

obtained in the community. With its active selling campaign, the company was generally able to find a buyer for any settler who wished to move out. Far be it from the settler who wanted to sell out to run down his own farm or the community to a prospect.

The field men making this survey took records in one township where the company had been operating for many years. They found 32 settlers who had been able to stick to their holdings. The net worth of these 32 settlers at time of settlement averaged $1,730, a rather high average. It will be remembered that the company did not want its purchasers to move in till they had $1,000 of working capital available. At time of settlement, these settlers were in debt an average of only $192. This means that most of them had their land all paid for before moving onto these holdings. At the time of the survey they had cleared an average of 1.84 acres per year and brushed only 0.49 acre. This is a very poor showing, especially for sandy land. It indicates that the settlers had been working off their farms a great deal. In the year 1919–20 they had earned an average of $220 per year at outside work. Their net gain, aside from the increase due to land clearing, averaged only $73 per year.

Even this degree of progress must be interpreted in the light of the fact that these 32 settlers were those who actually succeeded in surviving. No record was available of the number who had come and gone. Presumably these permanent settlers were far above the average in ability to survive under the difficulties and discouraging conditions by which they were confronted. It should also be pointed out that most of the settlers had been on their land long enough to make a fair experiment of the possibilities of the region. All but four had been developing their farms for five years or longer. Nearly a third had been on the land 10 years or more.

These facts probably give the clue to the methods of this company. It employed a highly-developed selling organization, one of the most efficient in the United States, to sell, at $15 to $30 an acre, raw land of low grade that the concern purchased in wholesale lots for a very small price per acre, much of it at tax sale.

Information received from outside sources indicates that the money obtained from initial payments and later payments on the principal averaged about 33⅓ per cent above selling costs. About half of this was required for general overhead expenses of the organization, and the rest was profits. It also appears that the income from the interest on contracts not abandoned by the purchaser paid the running expenses of the office.

In short, this concern had deliberately chosen to sell lands of very low quality in spite of the fact that land much superior for colonization purposes was to be had in the Lakes States. Furthermore, they employed their strong selling methods to sell this land to a class of people unfit to judge of its quality and probably on the whole ill-fitted to make a success of pioneer farming. As their volume of sales had been large, they are without doubt guilty of doing a vast amount of harm not only to their unfortunate victims, but also to the work of those land settlement agencies engaged in more legitimate methods of selling land.

LAND SETTLEMENT FROM STANDPOINT OF PUBLIC INTEREST

In this discussion an attempt has been made to give a fairly complete picture of the agencies engaged in land settlement in the Lakes

States and of the methods employed. The various aspects of the problem of land settlement have been considered largely from the standpoint of private land-settlement agencies. It is now in order to appraise this process of land settlement from the standpoint of the public interest.

It is obvious that in doing this we leave the ground of facts somewhat behind and enter the domain of opinion. Naturally, different people will have different attitudes according to their concept of the function of the State. Those who look upon the State as merely an agency for police protection will view this process of land settlement in a different light from those who lean toward the organic conception of the State and its functions. Those who have the latter point of view will not be concerned only with eliminating fraud, but will judge the methods of land settlement according to whether they make for efficiency in the use of the natural and human resources of the nation and for the welfare of those who are concerned. With due recognition of these differences in point of view, the authors venture to indicate certain conclusions which seem to be indicated by the facts brought out in the present study.

Certain types of agencies have been described which are purely parasitical in their aims and methods. Such are the concerns that have been engaged in deliberately selling worthless land by methods which, if not technically fraudulent, are very close to the boundary line of fraud and fall well within that territory when viewed from the standpoint of motive. There can be little question as to the desirability of instituting some more effective machinery, either State or National, for the purpose of eliminating this element in the business of land settlement.

Perhaps the greater part of the land sold at retail in the undeveloped portion of the Lakes States has been disposed of by agencies which probably, in most cases, did not formally assume any responsibility for the establishment of the settler on the land. Their concern was sale, not settlement. However, there were great differences among these concerns. Some have sold land of the best grade; others have priced their lands according to quality, letting the purchaser buy whatever he desired, following the ordinary standard of business ethics in the representations made concerning the land, but largely operating according to the doctrine of *caveat emptor*. Some of these firms have pushed the sale of land by extensive advertising and arrangements with local agents, while others have proceeded more slowly. Some of these concerns, although not assuming any formal responsibility for establishing settlers on the land, have actually made a practice of selecting settlers and aiding them in various ways. Some of the agencies have sold their lands at unduly high prices; others, at very reasonable prices. In short, there were found in this general class both good and bad types of concerns.

From the standpoint of public interest, it would appear that concerns of the type which sell all classes of land, irrespective of whether it is economically supermarginal or submarginal, are not operating entirely in the general welfare, and that some method should be employed to prevent the sale of land not physically or economically suitable for settlement. The same general conclusion would seem to apply to the sale of land even of good quality at unduly high prices. It should be recognized that in many cases these high prices are the outgrowth of competition in the sale of

land leading to heavy expenses for advertising and selling, and it would seem that this is to be charged up as one of the undesirable consequences of the process of private sale and settlement under conditions of severe competition which has so largely characterized the business of land settlement in the Lakes States.

Even if the land is of good quality and sold at a reasonable price the promotion of land settlement by this class of agencies will have certain disadvantages, if not properly planned; for example, if the land is being sold in scattered tracts in an uninhabited area entirely remote from market and without any community facilities, with the settlers widely separated from each other and left to their own fate. If, however, such concerns are settling territory which is fairly well located from the standpoint of transportation, markets, and other community advantages, filling up gaps in territory already partly developed, by placing settlers here and there either on partly developed farms which are being resold or on wild land interspersed with partly developed farming areas, they may be rendering a high order of settlement service. It is true, however, that even under these favorable circumstances a considerable number of settlers fail; and some of this failure could be avoided by the kind of aid and supervision furnished by the intensive colonization companies.

Another great type of land-selling agency here described consists of those concerns which are assuming more or less responsibility for aiding the settler in establishing himself on the land. What shall we say concerning the significance of this type of land settlement viewed from the standpoint of the public interest?

Most of the concerns of this type appear to have been operated according to fairly high standards of business ethics. Furthermore, a considerable number are the product of careful and thoughtful study of the business of land settlement and have been exhibiting in their management an unusually high quality of efficiency in administration.

Some of the concerns described have developed to a high point their arrangements for aiding the settlers in the difficult business of improving their lands and establishing themselves successfully. Consequently, such firms are characterized by whatever advantages may be attributed to such facilities.

From a public standpoint, the criticism of these enterprises would seem to consist largely in certain limitations which grow out of their private character and the excessive competition to which they are continually subjected. In the Lakes States as well as in other parts of the country there is an enormous area of wild land which at the present time is of little economic advantage to the owners and which is a continual burden of costs. Such land can be sold even when it is not economically adapted to farming in quality, situation, or price, provided enough effort and expense are devoted to the job of selling it. The market for such land is extremely limited and in consequence the competition for settlers has been most intense. It is this excessive competition which has forced colonization companies to engage in heavy expense for advertising and selling, to provide easy terms of land credit, and to follow the policy of providing supplemental credit for development either in the form of buildings constructed in advance or in the form of supplemental loans for development purposes. These overhead expenses,

in turn, have intensified the need for rapid selling and consequently the expenses of sale.

The inevitable result of these methods has been to make the road to settlement extremely easy. These facilities have necessarily been provided at great cost, so that some of these firms were unquestionably selling wild land at prices several times the prevailing wholesale level of price for wild land, and these high prices did not necessarily mean large profits for the concerns themselves, but were made inevitable by the heavy expenses for service, by risks involved in exceedingly liberal credit, and by the heavy expense of rapid sale. Furthermore, making the road to settlement so easy tends to attract a class of settlers who are not of the highest type either in experience or financial capacity; in other words, people who have failed to accumulate sufficient capital to establish themselves by the ordinary methods of self-help and some of whom are doubtless overpersuaded to undertake the hardships of land settlement in the wilderness.

The question may be raised whether the public interest is advanced by this artificial diversion to the land of a class of people not particularly well suited for the business of farming, and a large proportion of whom have been brought from cities. This question is especially pertinent when it is recognized that there is normally a large overflow of farm population from the country to the city, and that the type of land settlement under consideration diverts from the city to the country a class of people who by training, habit of mind, and financial ability are probably not well suited for farm life under pioneer conditions.

A more natural process of land settlement would seem to involve some of the following elements:

1. A careful selection of the land to be settled.
2. Diversion to the land only of those who in the natural course of things are seeking to become farmers rather than those induced to become farmers by an elaborate system of advertising and salesmanship.
3. Selection of those with sufficient experience and capital so that the responsibility of the land settlement agency will be a minimum while a maximum of responsibility is left to the individual initiative and self-help of the settler.
4. Sale of land at a reasonable price and on convenient credit terms as to repayment and low rates of interest, but not on terms that are too easy from the standpoint of initial contribution by the settler himself. In other words, it may be questioned whether it is a kindness to make it too easy for a person to become a settler under too large a burden of indebtedness in proportion to the equity of the settler himself.

This discussion has shown that a lumber company which has good land may be in a somewhat better position to approximate these requirements than a dealer who is compelled to sell quickly because of the heavy burden of carrying charges; and that if the lumber company is still engaged in lumbering operations, this will create especially favorable conditions for successful settlement. In other words, given good land and reasonably good transportation facilities, a policy of effecting settlement at the same time with the cutting of the timber has many advantages.

WASHINGTON : GOVERNMENT PRINTING OFFICE : 1925